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"An Attractive, Self-Liquidating Project—"

—says Railway Age about an installation of "Union" Remote Control at two junctions involved in the operation of an important cut-off on a large western road. With three switches at each junction, over which 40 trains operate daily, the annual saving equals 39.5 per cent of the investment.

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"United We Stand; Divided We Fall"

This is the zero hour in the history of private ownership and management of railways in the United States. In the first six months of 1938 railway companies operating more than half of the country's mileage did not earn enough to pay merely their operating expenses and taxes. The industry as a whole earned only \$70,300,000 net operating income — only one-fifth as much as in the first half of 1929, and only one-third as much as the average amount earned in the first halves of the nine depression years 1930-1938, inclusive. After including "other income" the net income of the industry was \$181,300,000 less than its fixed and contingent charges—a loss of over \$1,000,000 a day.

Business has been improving since the middle of May, but very slowly. These facts show the industry is heading for general bankruptcy. If the present trend of gross earnings continues much longer, and no substantial reduction of operating expenses is secured, only a few railway companies can escape bankruptcy.

In an effort to secure a vitally needed reduction of operating expenses, the industry has asked for a 15 per cent reduction of the highest wages in history. It has been conclusively proven (1) that this reduction would do no injustice to present employees; (2) that it would benefit thousands of employees whom it would make practicable to put to work and whose work is needed; (3) that it is essential to avoid destruction of the investment of many thousands of security-owners, and (4) that it is essential in the public interest in order to enable the railways to make vitally needed increases in their purchases of equipment and materials.

Nevertheless, the leaders of the railway labor unions have thus far refused to agree to any reduction of wages and are polling their members for authority to order a nation-wide strike.

At this most critical juncture, what are railway managements going to do? They have stood firmly together thus far. But they did not do so last year, with the result that there were granted advances in wages which were economically unjustifiable even then. This is why there can be raised a question now as to whether they will stand together through the present crisis until they have secured the reduction of wages that they legally can, unless some new action by government is taken legally to prevent it.

If the final choice is between putting the wage reduction into effect and having a strike, or not putting it into effect and avoiding a strike, what should be the choice? We know already that if a reduction of wages is not made and there is not soon a greater improvement in business than is now in prospect, most railroads will become bankrupt. If they long remain bankrupt the outcome must be government ownership, because no industry can long be operated at a loss under private ownership.

What Would a Strike Cost?

What, then, would be the cost of a strike? That would depend, of course, upon whether it was ordered on all railroads or on only part of them, and on how long it lasted. But never in history would the industry as a whole have lost as little by a strike as now because it is operating at a heavy loss already. If it tried to continue operation it would either be given adequate police protection or it would not be. If it were given adequate protection it could undoubtedly soon break a strike, because many thousands of employees would refuse to quit work and many of the thousands now unemployed would be glad to go to work. Even without adequate police protection, the railways won the shop employees' strike of 1922. If they were not at first afforded adequate police protection they would be warranted in suspending operation until they were.

How much, then, would they actually lose if they suspended operation? Let us test this by what they actually would have lost in the first half of 1938 if they had not operated at all. Their gross earnings were \$1,636,408,000. They would have saved practically all their operating expenses, which were \$1,332,000,000. They would have saved almost all of \$48,000,000 payroll taxes. Presumably they would have saved \$6,000,000 of federal income taxes, as they would have had no income to tax. They would have immediately returned to its owners privately-owned equipment used by them and thereby presumably have saved approximately \$47,000,000 in equipment rentals. These total savings would have approximated \$1,433,000,000, or \$203,400,000 less than the gross earnings that they would have lost. In other words, by not operating at all the industry apparently would have lost

somewhat over \$200,000,000 *more*—at the rate of about \$34,000,000 a month or \$1,124,000 a day *more*—than it actually did lose. How much would its employees have lost in wages? A total of \$852,000,000—about \$142,000,000 a month or \$4,707,000 a day.

Strike Cost Versus Operating Savings

The industry's increased loss of about \$1,124,000 a day—as compared with a loss of \$4,707,000 a day in pay by its employees—due to not operating at all would be temporary because it is inconceivable that a strike could tie it up long. On the other hand, it is seeking a reduction of \$21,000,000 a month—about \$706,000 a day—in wages; and, once effected, this would continue indefinitely. It would appear, therefore, that under present conditions on the most conservative estimate the railways would soon gain much more by having a strike and getting a reduction of 15 per cent in wages than they would by avoiding a strike and not getting a 15 per cent reduction in wages.

How about the interest of other parties to the dispute? Employees who struck in obedience to the order of the labor leaders would lose jobs which, even in spite of a 15 per cent reduction in their pay, would be better than they ever had before the depression. Many thousands of unemployed railroad men would have opportunity to secure jobs that they would be glad to get. Many railway security-owners would have their investment saved. The extent and length of the public inconvenience and suffering caused would depend upon whether and how soon public sentiment forced government authorities to give the police protection required to enable the railways to operate; and in the long run the public would gain by having the employing and purchasing power of its railroad industry increased and by having it saved from general bankruptcy, if not government ownership.

In the circumstances, it would appear that no argument that railway managements should not stand to-

gether and go through with their wage movement, even if this causes a strike on all railroads, has any force—that the argument that they should stand together and go through with their wage movement even if it causes a strike is conclusive.

There is always fear that the labor leaders, instead of ordering a general strike, will order strikes only on strategic railways that are believed to have the most to lose. But the managements of these railways, like the managements of all others, must squarely face the question as to what will happen to the railroad industry if, under present business conditions, it does not get a reduction of wages. The chronic bankruptcy of the industry means government ownership of it, including the so-called "rich" railroads as well as the much greater number of poor ones.

A Need and an Opportunity

There never was a plainer case of "united we stand; divided we fall." By securing an increase in the average hourly wage of 182 per cent since 1916, while output of traffic units per man-hour has increased only about 70 per cent, the labor leaders have monopolized for a greatly reduced number of employees all the benefits derived from all the increases in railway technical efficiency and advances in freight rates made within twenty-two years. This cannot be allowed to continue if the railroad industry is to avoid general bankruptcy and government ownership.

There never was, and never will be, more need and a more opportune time for railway managements to stand together and turn the labor leaders back. Apparently the railroad industry has much to gain and comparatively little to lose by going the limit to win the present struggle with labor leaders who have indicated there is no limit to which they will not go in the effort to ruin the industry upon which their members—employed as well as unemployed—are dependent for a livelihood.

As Others See the Railway Labor Situation

Rail managements, faced with financial difficulties, have been forced to cut costs wherever possible. Maintenance and replacement of way and structures have been skimmed and labor has suffered accordingly.

A good part of this cost-cutting was necessary because the railroads were unable to employ their labor efficiently. In 1937, the carriers paid out nearly \$90,000,000 for hours not worked under full-crew laws and so-called "featherbed" rules.

That suggests how the unions—were they willing—could assist railroad managements toward meeting fixed charges. But the unions not only insist on featherbed rules—which make it possible for engineers on fast passenger train schedules to collect as much as \$300 to \$350 a month for from 80 to 90 hours of duty—but also they insist on maintaining wage rates at the highest level in history during

a year in which the carriers as a whole will lose about \$180,000,000.

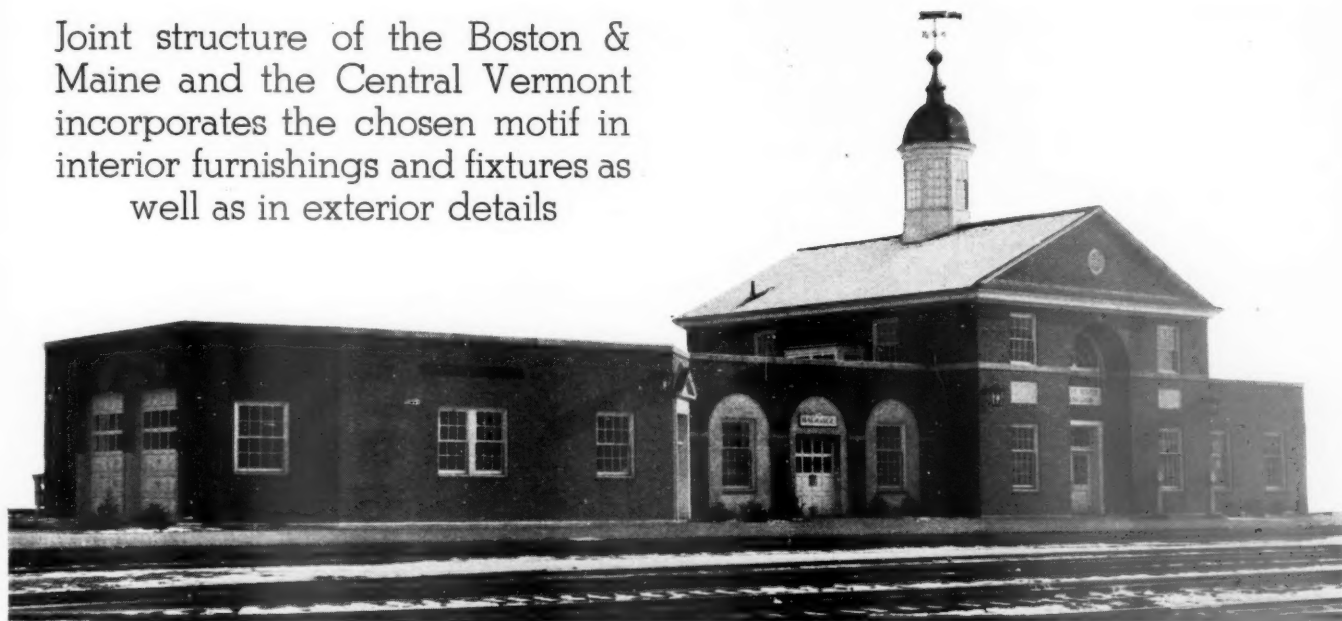
That policy may sit well with the men who are still working and still being paid. But it's questionable whether it will appeal widely to thousands of disemployed railroadmen who are sitting on the sidelines waiting for jobs; this, at a time when there is every likelihood that the roads will be forced further to decrease employment, in the interest of lower costs.

Certainly, there is now little incentive for the roads to expand expenditures on maintenance, replacements or purchase of new equipment. For, in the final analysis, before any increased expenditures are warranted, railroad managements must test them with a question: Will improved facilities increase net operating income? And for the most part, the answer to that question must be "no."

From an Editorial in "Business Week"

Colonial-Type Station Embodies Distinctive Features

Joint structure of the Boston & Maine and the Central Vermont incorporates the chosen motif in interior furnishings and fixtures as well as in exterior details



The New Station Was Designed in the Colonial Motif to Harmonize with Dartmouth College Buildings Nearby

DISTINCTIVE features of design and construction, including colonial-type architecture which is incorporated in the interior finish and the furnishings as well as the exterior, characterize a new joint passenger station which has been constructed at White River Junction, Vt., by the Boston & Maine and the Central Vermont. The choice of the colonial motif for this station was influenced largely by the fact that the buildings of Dartmouth college, which are also of colonial design, are located only a short distance from the station and it was desired to harmonize the appearance of the latter with that of the college buildings.

White River is located at the junction of two main lines of the Boston & Maine and one main line of the Central Vermont, and the arrangement of the tracks is such as to afford a station site on an island platform. Originally, this site was occupied by a brick structure which was built in 1848. In 1911, the original station, which had been extensively altered and improved at various times, was destroyed by fire and was replaced by a temporary frame building which was erected on the old foundations. In March, 1935, the temporary station met the same fate as its predecessor, and from that time until the completion of the new structure, passenger station facilities were housed in temporary quarters in an old baggage building.

General Features of New Station

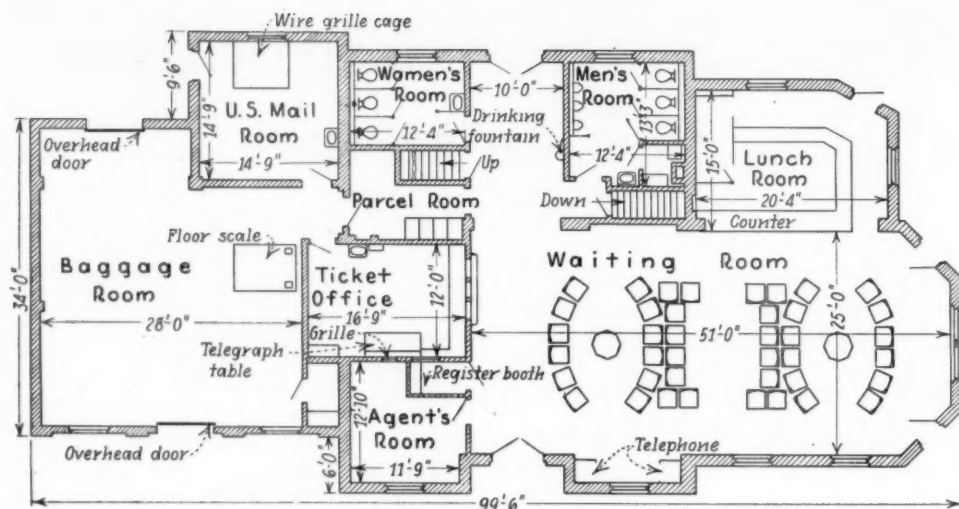
The new station is 49 ft. 6 in. by 99 ft. 6 in. in overall dimensions, exclusive of the express building that adjoins it on the north. It has a two-story central unit, surmounted by an appropriately designed and orna-

mented cupola, and one-story wings on both the north and the south sides, the former consisting in large part of the express building which for all practical purposes forms an integral part of the station building. In addition to the waiting room, which is 25 ft. by 51 ft. in plan, the first floor contains the ticket office, the agent's office, a baggage room, a parcel check room, a lunch room, toilet facilities, a register room for train crews and space for the handling of United States mail. Two telephone booths are provided in a recessed space in one wall of the waiting room. The space on the second floor of the main unit is occupied by a locker room and toilet facilities for trainmen and a room that is used for conferences and hearings.

In plan the station is substantially rectangular in shape but monotony is avoided through the effective use of set-backs, bays and truncated corners. The exterior walls are of hollow tile, faced with Harvard waterstruck brick laid in Flemish bond, and the wall caps and belt courses are of white cast stone, while the lintels and sills of the windows are of ground brick. Over the two-story portion the roof is of the gable type and is covered with standing-seam copper roofing, while over the wings the roof is flat and covered with tar and gravel.

Exterior Details

In harmony with the general scheme of architecture, the windows are of the multiple-pane type and are trimmed in white. Likewise, the exterior doors and their frames, both of which are of wood construction, are painted white, as is the timber cornice of the pitch roof. Effective use is also made of panels of white



Plan of the New Joint Station at White River Junction, Vt., Showing the Arrangement of the Individual Arm Chairs in the Waiting Room

stucco in the exterior walls. In the facade of the station, the windows and the exterior door of the baggage room are arranged in such panels, these being curved in outline to give an arch effect. Two rectangular panels of stucco are also placed in the facade of the two-story unit, one on each side of the main entrance. The latter is recessed somewhat in an arched opening which embodies a semi-circular window in the arched portion.

The cupola adds a convincing touch to the general motif. It is hexagonal in cross-section, has a window in each side and is painted white. Surmounting the cupola is a dome-shaped roof of flat-seam copper that terminates in a spire carrying a copper-covered sphere and a weather vane in which the pointer is in the form of a steam locomotive.

In the design of the interior of the station, particularly the waiting room, careful attention was given to the incorporation of the colonial effect here as well as outside the station. In the waiting room and lunch room, the walls and ceilings are of painted Sheetrock above a 42-in. panelled dado of decorative Flexboard, and the floors are covered with Jaspé linoleum.

Waiting Room Has Chairs

A particularly distinctive feature of the waiting room is the individual arm chairs that replace the conventional

settees and benches that are ordinarily provided. These chairs are of maple construction and are colonial in design; thus they contribute substantially to the general effect which it was desired to create. While they are ordinarily arranged in accordance with a specified layout, which is informal in character, the chairs can, of course, be rearranged to adapt them to the needs or desires of patrons. Contributing to the informal aspect of the waiting room are two small round-top tables, which are also of maple construction and colonial in design. The club-like atmosphere that is imparted to the waiting room as a result of the character and arrangement of the furnishings has drawn hearty expressions of approval from the railroads' patrons.

In the agent's office and the parcel room, the walls are finished in walnut-grained Sheetrock in panels, while in the ticket office the walls are of plain Sheetrock painted light cream. In all of these rooms, the ceilings are finished in cream, tinted lightly with green, and the floors are of maple. Above a seven-foot dado of decorative Flexboard having a scored face, the walls of the toilet rooms are of Sheetrock painted cream, while the floors in these rooms are of Mulsomastic asphalt.

All electric-light fixtures on the interior of the station are of the Holophane type and those in the waiting room and the lunch room are recessed. On the exterior of the building, the lighting fixtures are of the colonial type



The Individual Arm Chairs With Which the Waiting Room Is Furnished, Comprise a Particularly Distinctive Feature of the New Station

and are suspended from the walls by means of appropriately designed brackets.

As an indication of the importance which they attached to the completion of the new station, and of the degree of satisfaction with which they viewed the type of construction employed, the local townspeople arranged a dedication ceremony in which the participants included the governor of Vermont and the president of Dartmouth college, as well as officers of the two railroads.

The building was designed and constructed under the direction of A. H. Morrill, chief engineer of the Boston & Maine, and R. D. Garner, chief engineer of the Central Vermont. Jens Frederick Larson, Hanover, N. H., acted as consulting architect. We are indebted to Mr. Morrill for the information contained in this article.

Questionable Drinking Water Found on Trains

BACTERIOLOGICAL tests made on 1,090 samples of drinking water collected from containers on all types of passenger cars operated by nine different railroads having terminals in or adjacent to New York City, indicated that at least two of these roads were cleaning their storage containers inefficiently, or were contaminating the water dispensed from them by handling it in a careless and insanitary manner. This is the conclusion of a report by Arthur P. Miller, sanitary engineer, and Edmund C. Garthe, junior sanitary engineer, U. S. Public Health Service, who, between September 14, 1936, and February 15, 1937, made tests of 1,090 samples of drinking water selected from the coolers and other containers on trains operating in interstate traffic into the metropolitan area of New York.

The purpose of the investigation, according to the report, which was published in a recent United States Public Health Service bulletin, was to determine whether the sanitary measures and protective devices employed at the terminals concerned were effective in protecting the quality of water during its handling from the source of supply to the hands of the consumers on trains. It was assumed, it was stated, that if a carrier did not care for and protect its car-watering facilities adequately against contamination, or if it failed to cleanse the storage facilities on its cars thoroughly and at sufficient intervals, these facts would be reflected in the quality of the water taken from the coolers or other containers. The investigators recognized, however, that this assumption could be considered accurate only if a sufficient number of samples were secured to offset completely in the conclusions drawn, any influencing variations in the methods of sampling.

Samples Tested Promptly and Carefully

In carrying out the work upon which their report is based, samples were taken from all types of cars without any attempt to be selective. In the same way, no choice was made of trains. No effort was made to secure detailed accurate information concerning the source or sources of the water in containers at the time of sampling, as it was felt that such information would have been unreliable, and, at the same time, of no value in assisting to formulate the conclusions sought.

All of the samples were tested in a laboratory under the supervision of representatives of the United States Public Health Service, so that the methods and technic

followed would be entirely comparable. The Standard Methods of Water Analysis of the American Public Health Association (Eighth edition, 1936) were followed in the laboratory work. Five 10-cc portions of each sample were planted. In all of the tests, samples showing three or more 10-cc tubes positive for the coli-aerogenes group were considered unsatisfactory. At no time did more than two hours elapse between the collection and testing of a sample.

Since the samples collected came from a wide variety of sources of supply, even in the case of individual roads, it was possible to evaluate the results shown by the tests on each particular road only by comparing them with water free of contamination and with the results of the tests on the other roads. It was only in this way that it was felt an opinion could be drawn as to the effectiveness of the work done by one railroad in the handling of drinking water, as compared with that done by other roads.

An attempt was made to correlate the results of the water sample tests with the types of cars from which the different samples were taken, but this proved unsuccessful. However, one of the roads from which a large number of samples was secured, was, as result of its intimate knowledge of the cars involved, able to show a relationship between the unfavorable results found and a particular design of car.

According to a tabulation of results presented with the report, the percentage of samples showing three or more 10-cc tubes positive for coli-aerogenes was considerably higher on two of the nine roads than on the remaining roads, with one exception, and the individual percentages of each of these three roads with the least favorable results were in excess of the average of all of the samples tested.

According to the report, the sources of water of the roads which produced the least satisfactory water samples are entirely satisfactory in themselves. It points out, therefore, that if the water from these sources is handled safely, it should reach the consumers in trains in good condition. In conclusion, the authors of the report state that the results of their investigations indicate that at least two of the railways involved in the tests are either cleaning the water containers on their cars inefficiently, or are handling the water delivered from supplying systems in such a careless and insanitary manner as to permit contamination.

* * *



"The Coronation" of the British L. N. E. R. Hauled by a Locomotive of the Type Which Made the Record Speed Run of 125 m. p. h. on July 3

Amenities of Railway Passenger Travel*

Measures which are being developed in England to improve the riding qualities and other factors affecting the comfort of railway passenger equipment

By Sir Harold Hartley

Vice-President, London, Midland & Scottish, and Director of Scientific Research

HOW far have we succeeded in removing all discomforts from rail travel and in making the railway carriage so attractive that it becomes a place of retreat from the noise and interruption of the modern world? This is not an idle question as two years ago on a hot day in Baltimore I heard of a man who, finding business rather dull, had decided to go to New York and back in an air-conditioned train for peace and coolness.

What are the conditions that determine the pleasantness of railway travel? In this age speed must be counted as an amenity, but no less so punctuality, otherwise a journey is associated with the worry of being late, instead of being a time of complete relaxation, of confidence in a safe comfortable arrival "on time."

But speed has a vital bearing on many of the other factors that determine the comfort of travel, as high speeds are much more exacting in many respects as regards the conditions necessary to give good running, and without this speed soon results in discomfort and fatigue.

Absence of vibration or irregular motion is probably the most important factor so far as the passenger's comfort is concerned, and although the difficulty of securing it increases rapidly with speed, great progress has been made in recent years. Smooth running depends both on the design of rolling stock and track, and on their maintenance.

Motion of the Wheel on the Rail

Let us consider the behavior of a pair of flanged, coned wheels moving along a straight continuous track. The treads of the wheels have always been coned, presumably with the intention of producing a centering effect and to facilitate movement round curves with the minimum of slip. Bearing in mind that the wheels are rigidly attached to the axle, any slight displacement from a truly central position will, owing to the effect of coning, result in an adjustment taking place by a transverse movement of the axle. If this proceeds too far the flange strikes the rail and a return movement is set up.

A four-wheeled bogie behaves in a similar manner, and with badly worn tires with a hollow contour the result is to produce a violent transverse oscillation known as "bogie-hunting," which makes the riding of the vehicle most uncomfortable.

The motion of a coned wheel on a straight track has

been studied by Dr. F. W. Carter and others in the past and, recently, a complete theoretical and experimental investigation has been carried out in the Cambridge University Engineering Department by Professor C. E. Inglis and Dr. R. D. Davies. The results of this research will shortly be communicated to the Institution of Civil Engineers. They have determined the form of the sinuous path traversed by a pair of coned wheels and axle as they move along a straight track, and have shown that so long as there is point contact between the tire and rail the wave-length of the motion depends on the coning of the wheel, the radius of the wheel and the width of the track, but is independent of the speed. The results of their calculations were confirmed both in the laboratory and on the track. These oscillations are, however, comparatively harmless until the tire is worn hollow to such an extent that it fits the top of the rail when, at high speeds, a violent high-frequency lateral motion is set up. Inglis' and Davies' theory suggests that cylindrical tires should give complete immunity from lateral oscillations and bogie-hunting.

At the same time as these calculations were in progress the rapid transit lines of the Chicago, North Shore & Milwaukee had experienced difficulty from rough riding and decided to investigate the motion of the wheels by taking a cinematograph record. They examined wheels with different conings, including a cylindrical wheel, and they found in this latter case that there was no regular oscillation, in agreement with Professor Inglis' theory, and that the flange of the wheel rarely struck the rail. They therefore equipped trains with cylindrical tires and found that they gave very smooth riding and that the effect of the cylindrical form was not lost rapidly owing to the tires becoming hollow through wear.

At about the same time high-speed Diesel trains, like the Burlington Zephyr, began to operate and at first they had trouble from excessive oscillation. However, by using cylindrical wheels on the trailing axles of each coach they got smooth riding even at speeds of 100 m. p. h.

The L. M. S. has also made cinematograph records which show similar results, and experiments with different conings on the Coronation Scot showed the excellent riding qualities of the cylindrical tire, the record run from Euston to Crewe on November 16, 1936, being made with such wheels. However, difficulties arose owing to excessive flange wear which made it necessary to turn the wheels after 20,000 miles in service on the fast London-Glasgow run, and at present the L. M. S. has adopted the compromise of a 1 in 100 coning, which gives almost as good riding at high speed and does not

* Abstract of a paper read at the Institute of Transport, London, England, April 11, 1938.

suffer from the disadvantage of excessive flange wear. The use of cylindrical tires brought out the necessity and also the difficulty of turning both wheels on an axle to exactly the same diameter.

Another method of avoiding oscillation of the bogie is to mount the wheels so that they rotate independently of one another. This has been done in the Duplex bogie, one of which is running in Switzerland. In this way the tendency to bogie-hunting is entirely eliminated, there is no sliding motion when traveling round a curve and the riding of the coach is excellent. The construction of the bogie is, however, much more complicated and the cost is correspondingly greater. It is difficult to estimate how much rail and tire wear is reduced by smooth running and to what extent the extra cost of the bogies would be met by the reduced maintenance and renewal costs of the permanent way, particularly as a large proportion of rail-wear is due to the driving wheels of locomotives.

Springing and Coupling of Vehicles

However good the riding, the coaches are subject to oscillations transmitted from the wheels as a result of impacts at rail joints, of minor imperfections of the track and of the motion of the bogies, and springing is provided to absorb these oscillations as far as possible. For this purpose a combination of helical and laminated springs is used, the former to give free elastic support and the latter to damp out vibrations. In addition to the springing, rubber is being used in seat and bed construction to eliminate vibration, and a laminated combination of alternate layers of rubber or other suitable elastic material with metal or wood is most effective for this purpose.

In order to get accurate records of the riding properties of different types of construction and of their deterioration from wear and other causes the Cambridge accelerometer is used to determine the transverse and vertical accelerations of a vehicle in motion. These are measured by means of the movement of two heavy weights held between stiff springs and free to move in a transverse or vertical plane, respectively, their movements being recorded on a strip of cellulose. The instrument is usually placed over the center of a bogie in order to observe the maximum transverse oscillations of the vehicle. The advantages of getting definite measurements in this way instead of trusting to personal impressions are obvious, and the instrument has played a most useful part in the improvement of riding qualities.

Noise

Closely allied with the reduction of oscillation and vibration is the elimination of noise, the presence of which adds enormously to the fatigue of a long journey, especially if it is of sufficient intensity to make conversation difficult. The main sources of noise are (a) the rolling of the wheels on the rails, (b) impact at rail joints, (c) rattling of brake-gear and movement of draw-gear, (d) vibration and movements of the body work, (e) vibration of the steel panels due to air flow, and (f) whistling of the air past windows and ventilators. Of these (a), (b), (c) and (d) are accentuated with bad riding and bogie-hunting.

All the noise originates outside the compartment, and it may reach the passenger by direct transmission through the body work, as air-borne noise which enters through open windows and ventilators, and to a much lesser extent by transmission through the walls and ceiling. Air-borne noise is, of course, reflected from the bed of the

track and is greatly intensified in tunnels and cuttings.

There are four ways of reducing the noise level in a compartment: (1) Diminishing as far as possible the production of noise; (2) absorbing the noise as near as possible to its source; (3) avoiding the entry of the remaining noise into a vehicle; (4) absorbing quickly the noise that enters.

To anyone who has traveled in closed air-conditioned coaches in America with tightly fitting doors, double windows and no direct opening to the outer air, it is obvious that if the direct air carriage of noise can be eliminated there is not much else to worry about, as the noise-level is normally reduced to a point where it is barely perceptible and conversation is easy. However, this solution is not generally possible and we must see what can be accomplished by other means.

Good riding, together with regular maintenance of the adjustable parts of the vehicles, goes far to eliminate noises due to excessive oscillation, flange blows, body working and rattling of brake gear, but even so a number of sources of noise still remain. The noise of rolling wheels can be reduced by using pneumatic tires as in the Michelin light car, or in stock of normal weight by resilient insets between the tire and wheel center such as the wooden disc in the Mansell wheel or a rubber washer which has been suggested between the tire and wheel disc. Rail-joint noise can be eliminated by welding or reduced by special forms of rail joint. Reduction of axle load by using a six- or eight-wheel bogie also causes an appreciable lowering of the noise. Streamlining is a partial cure for the whistling of air and the forced vibrations of steel panels, and the latter effect can be remedied by backing the panels with a damping material.

A number of experiments have been made on the L. M. S., partly in conjunction with the National Physical Laboratory, to determine the main sources of noise in main-line stock, and the best means of reducing them, and the following are some of the devices that have been investigated with this object:

- (a) Enclosing the bogies in shrouds as in a fully stream-lined train, thus providing an obstacle in the path of the sound waves.
- (b) Spraying the shrouds, under body, bogies, boxes and roof shell with asbestos.
- (c) Building double-shell body work with acoustic absorbents between the shells, including the floor, and fitting double windows.
- (d) Using materials with a high sound-absorption coefficient in the construction as decoration of the compartment.
- (e) Interposing pads of rubber or other suitable material at special points in the structure of the bogie or coach to prevent the transmission of sound vibrations.

The reductions of noise-level obtained by the above means are (a) 6 to 10 phons, (b) 3 phons, (c) 4 phons, (d) 1 to 2 phons*.

Reduction of noise-level will remain one of the serious problems of long-distance travel as it is one of the largest factors in determining the comfort and restfulness of a journey.

Heating and Ventilation

The third factor which contributes greatly to the comfort of a railway journey is the heating and ventilation of the carriage. Any general solution to this problem is complicated by the wide differences between individual preferences.

The following values have been found to satisfy aver-

* The phon is the unit of loudness and is related to the energy of the wave motion associated with the sound in question. The loudness in a normal room is about 40-50 phons; in busy traffic about 80, in a printing press room about 110 phons.

age comfort conditions in Great Britain for most individuals:

Air (dry bulb) temperature, deg. F.	60-70
Relative humidity, per cent	50-60
Rate of air movement, ft. per min.	25-50
Proportion of radiant heat to convectional heat	About 1

The only means of securing these conditions independently of the outside temperature of the carriage is by a system of air-conditioning in which the carriage is completely closed, and insulated as far as possible by double windows and layers of non-conducting material in the walls. A complete air-conditioning plant in which both the temperature and humidity of the air is controlled is costly to install and maintain and probably is only justified in hot or dusty climates, as the cooling system is responsible for a large proportion of the cost.

In this country where the climate does not justify the cost of complete air-conditioning a beginning has been made with systems of forced air ventilation on such trains as the Coronation, the Coronation Scot, and on the sleeping cars of the L. M. S. and L. N. E. R. Undoubtedly the possibility of getting ventilation and air movement without opening a window or ventilator, and thus introducing noise and dirt, is a great contribution to the comfort of railway travel although the tradition of the open window dies hard.

Two proprietary systems are used on the British Railways for this purpose, in both of which fans supply air to the coaches which has been filtered and if necessary heated. Stones' system has been used mainly in open vestibule stock, in which the air enters through ducts running along the side of the coach close to the floor, about fifteen air changes being made per hour. In the Thermotank system, used in sleepers, the air enters through an adjustable louver on the wall, and the passenger can control the temperature and also the rate of flow of the incoming air up to twenty changes per hour.

It is usually assumed that the locomotive is the source of dirt and dust entering the window of steam trains, but an investigation of the nature of the dirt over several routes showed that it was derived about equally from the locomotive and from the ballast and that its character varied with the nature of the ballast material.

The problems of train heating and ventilation still require a good deal of investigation in order to find methods which are both economical and satisfactory to the passenger.

Lighting

The filament lamp has made possible a great improvement in the lighting of modern stock and there is now no difficulty in providing general illumination of not less than 3 foot-candles and illumination for reading purposes of 6 to 7 foot-candles, both of which are fair average standards for comfort. The best utilization of the wattage available is, of course, an important point, especially in steam stock, and the reflection factors of the decorative materials have a large influence in this respect. For instance pink Rexine in a sleeping car was found to give 40 per cent better illumination than brown Rexine. In addition the position of the lights and the form of the reflectors require careful study for each type of stock.

Shoulder lights give good results for reading but they have the disadvantage of glare for the passenger sitting opposite them, and indirect lighting following the modern practice would be the most restful method of illumination, but it involves a larger current consumption which is a serious factor. It has, however, been used in a number of luxury trains, and the crack train of the

Victorian Railways, "Spirit of Progress," has indirect lighting for general purposes and shoulder lights that can be switched on for reading purposes.

On electric stock there is no difficulty about the supply of current as this is taken from the power lines either direct or, with high voltages, through a motor generator. With steam-stock the current must be generated by an axle-driven dynamo with accumulators for use when the train is at rest, or by a turbo-generator on the locomotive. The power used in lighting is about one kilowatt per coach so that with a 10-coach train the amount of power absorbed from the locomotive is by no means negligible, and the weight of the battery (three-quarters of a ton) amounts to $2\frac{1}{2}$ per cent of the weight of each coach. Hence it is important to make the system of lighting as efficient as possible so as not to add unnecessarily to the weight of the coach or the power taken from the engine, especially in view of the power required for any system of forced ventilation and the steam needed for heating the train.

We seem to have reached finality in improving the efficiency of the filament lamp, so that for further improvements in train lighting we must look to more economical systems of indirect lighting and to the development of the vapor discharge lamp, which, however, in its present form is quite inapplicable to this purpose.

I have tried to show how many of the problems that affect the comfort of the passenger are susceptible of scientific analysis, and how the earlier methods of trial and error treatment can now be replaced by methods of investigation in which the different variables can be isolated and measured, so that the method of trial and error, which is costly and usually inconclusive, can be avoided. It is along these lines that progress can be made towards even greater comfort at a cost that is not prohibitive. One of the greatest railway problems is wear in all its aspects, and the hope of economy lies in progress in design and in the metallurgy of all moving parts, but only analysis and measurement can make this progress possible, and the same is true of almost every factor I have mentioned. Like all sales problems the question is how to give the public more and more for less and less.

* * *

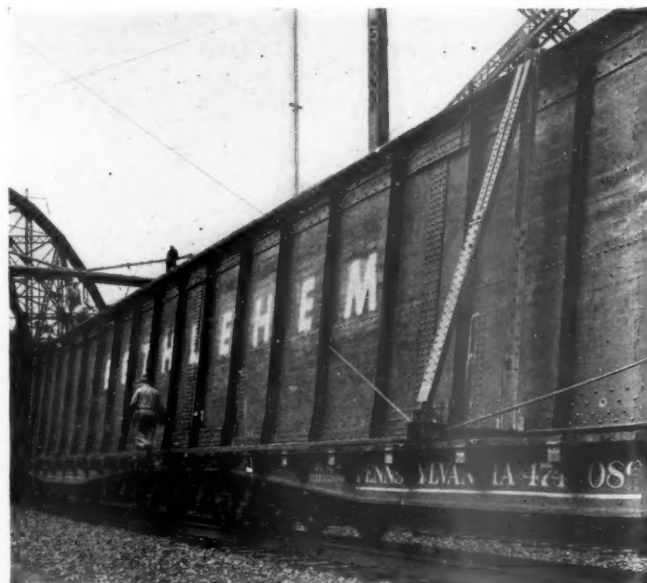


Photo by Bethlehem Steel Co.

This 140-ft. Girder Required Three Flat Cars for Movement Over Reading and P. R. R. Tracks Between Pottstown, Pa., and Winans, Md.

The Importance of Rule 93*

Safe yard operation dependent upon proper wording and strict observance of provisions

By W. J. Patterson

Director, Bureau of Safety, I. C. C.

NO rule in the books is violated more frequently by employees, with the knowledge and consent of operating officers, than Rule 93. Unless otherwise specifically stated, the requirements of the rule apply alike to all yard limits on each respective road; yet there seem to be about as many different methods of observing the rule as there are yard-limit locations. This is caused partly by the fact that the intended purpose for establishing yard limits is frequently disregarded when such limits are established.

Rule 93, when formulated, was intended to facilitate and at the same time provide adequate safety for switching movements. It was anticipated and recognized at the time that facilitation of switching movements under the provisions of the rule would be accomplished through sacrifice of expeditious movement of certain road trains. This, however, is not always the case, for in some instances it is evident that yard limits are established for the purpose of obtaining the benefits afforded by Rule 93, but the accompanying sacrifices are rejected. The rule will not work in this manner but follows the old adage that "you cannot eat your cake and have it too." The penalties attached to the rule with respect to operation must go hand in hand with the benefits it affords.

When fixing yard limits, the territories covered should be as short as practicable and as few as possible to operate trains properly. This is too often abused. Yard limits should not be extended to include long distances and many miles of obscure portions of main track, over which, under Rule 93, trains are required to operate at restricted speed, but at the same time scheduled at high speeds and the maintenance of these schedules exacted. In other instances, the purpose of establishing yard limits has been ignored, and such limits are designated merely to expand the territory of yard engines unnecessarily or to avoid flagging, so that, for example, the flagman of a way-freight might devote his services to unloading freight instead of protecting his train, as would be required of him but for the yard-limit protection. Yard limits under such circumstances often lead to the development of dangerous operating practices which eventually result in accidents.

Wide Variations

Variation in practices under the rule, with a view to providing additional safety, has led to many accidents. Such variations in practice, instead of providing the additional safety intended, have worked in the opposite manner and resulted in a hazard when each individual held responsible under the rule depended on the other fellow for its observance, resulting in non-observance by both employees.

At all points, except within yard limits, inferior trains

are required, under Rules 86 and S-87, to clear the time of first-class trains; however, under Paragraph 1 of Rule 93, this requirement frequently is not exacted within yard limits, the only requirement being that flag protection be afforded. Such a provision authorizes any train or engine to occupy the main track within yard limits on the time of any first-class train, and one road has made Rule 93 so wide in scope that all trains are authorized to use the main track, under flag protection, on the time of first-class trains, at all stations, yards, sidings and fuel and water stations while at the same time the rule book contains the usual provisions for clearing superior trains appearing in Rules 86 and 87.

High Speed Trains

Any rule which, under these conditions, invites a delay to every first-class train at every yard-limit location on a railroad is susceptible of improvement. That others agree in this thought is shown by the yard limit rules of 12 of 25 railroads in which Paragraph 1 of Standard Rule 93 has been either entirely omitted or framed to provide specifically for clearing the time of first-class trains. Paragraph 1 in this age of high-speed trains may, if not properly drafted, result in hazardous conditions. Some of these trains pass yard-limit boards at speeds requiring a stopping distance of more than a mile; authority to use the main track on the time of such trains, even though under flag protection, does not promote safe operation.

In the timetables of a number of roads operating high-speed trains, special instructions have been adopted specifying the clearance time of these trains, but in some cases Paragraph 1 of Rule 93 has still been left wide open. Unless these special instructions specifically state that they also apply to trains and engines operating within yard limits, such instructions are merely amendments to Rules 86 and S-87, and Paragraph 1 of Rule 93 has not been disturbed.

A rear-end collision occurred within yard limits on a single-track road in the south. The yard limits extended for a distance of 5,018 ft. The west yard-limit board was located on a 6-deg. 33-min. curve to the right, followed by an 8-deg. curve to the left which in turn was followed by a 6-deg. 5 min. curve to the right. A tunnel nearly 400 ft. in length was located on the 8-deg. curve, the track within the tunnel also being of the same curvature. A branch line junction and a storage track were located a short distance east of the tunnel, these being the only tracks located in this vicinity other than the main track. Speed-limit boards were located near the track approaching each end of the tunnel, limiting the speed of eastbound trains to 6 m. p. h. through the tunnel and the speed of westbound trains to 8 m. p. h. The crew of an eastbound freight had picked up a cut of cars from the storage track and assembled the train on the main

* From an address delivered before the regional safety meeting of the A. A. R. in Chicago.

track east of the tunnel; due to an ascending grade at that point, difficulty was experienced in starting, and after making one or two unsuccessful attempts, it was decided to back the train to get a start for the hill. Consequently, the train was backed and the rear end entered the tunnel, and while backing at a speed of from 4 to 6 m. p. h., collided inside the tunnel with the engine of an approaching eastbound extra train which had just been stopped because the engineman noticed the reflection of the red marker lights against the tunnel wall. The caboose of the first train was demolished and caught fire, and the flagman, who was inside, was trapped in the wreckage and burned alive.

Rule 93 of this road reads as follows: "Within yard limits, the main track may be used without protecting against second and inferior class trains. Second and inferior class and extra trains must move within yard limits prepared to stop unless the main track is known or seen to be clear. When the view is obstructed, additional precautions must be taken. In case of accident, the responsibility, will rest with the approaching train."

If the provisions of Rule 93 relative to taking extra precautions when the view is obstructed were observed literally, all trains passing through the tunnel should be preceded by a flagman; yet the authorized speed for trains through the tunnel is 8 m. p. h. for westbound trains and 6 m. p. h. for eastbound trains, which would indicate that it was not intended that the provisions of Rule 93 should be observed literally by trains making this movement.

Another yard collision occurred on the main track near the center of a three-mile tangent. This was a single-track line and the eastbound and westbound yards paralleled the main track on the south, the east switch of the yard being about 30 car lengths west of the switch used by westbound trains entering the west yard. Rule 93 permitted use of the main track within yard limits, protecting against second-class and extra trains and also required such trains to run prepared to stop unless the main track was seen or known to be clear. It has been a practice for years for yard crews to use the main track between entrance switches to the eastbound and westbound yards in switching operations at this point without furnishing flag protection against second-class trains, as required by Rule 93; the general practice, however, being to keep clear of the westbound yard switch so that westbound trains could enter this switch, and these trains were operated under the assumption that the main track would not be used east of the switch unless flag protection was afforded. On the occasion involved in the accident, the switching crew was handling a longer cut of cars than usual and it was necessary to move beyond the west yard switch to make the pull; however, no flag was sent out to protect the movement, as no westbound train was then in sight and the movement was all within yard limits. Shortly after the switch engine had made the movement, a second-class westbound freight was seen approaching; the engineman of this train saw the headlight of the switch engine on the main track, but assuming that the engine had kept clear of the west yard switch, he operated his train at normal speed, expecting to stop east of that switch before pulling into the yard. When he realized that the switch engine had pulled beyond the switch, he was then too close to permit of stopping his train and it collided with the switch engine, killing two employees and injuring another.

At the investigation, the yard conductor stated that if one of his men had been used to flag, it would have caused delay in making up trains and the yardmaster would not tolerate delays; also that he had been criticized by the yardmaster in the past because of the time

used in making up trains. This accident is illustrative of what may occur as a result of bad operating practices, and also is an excellent sample of accepting the benefits afforded by Rule 93, but ignoring the sacrifices entailed.

Divided Responsibility

The two following accidents illustrate clearly what may occur when divided responsibility is included in yard-limit rules:

The first accident occurred about 3 p. m. on a clear summer day. An eastbound yard drag had stopped at a water plug in the yard, with the rear end of the train standing within yard limits, about 100 ft. west of a stop board located at the end of a curve, when it was struck by a following yard transfer. Difficulty was encountered in removing the water spout from the manhold after water was taken and the engineman was assisting the fireman in this work when the collision occurred. The engineman was knocked off the tender and fell to the track between the tender and the first car, where he was run over and killed.

Under special instructions contained in the timetable, trains in yard limits were required to run with great care and under such control that the engineman might at all times be able to stop within his range of vision, and whenever the view of the rear end of the train was obstructed, the flagman was required to go back a sufficient distance to signal the engineman of an approaching train. Owing to the curve back of the standing train, it would have been necessary, in this case, for the flagman to go back approximately 550 ft. to signal the approaching train. The flagman fully understood the flagging requirements in this territory, and there was ample time for him to have afforded proper protection, but instead of doing so, he went back but two or three car lengths, under the apparent expectation that any following train would be running at low speed prepared to stop at the stop board near which the rear end of his own train was standing.

The engineman of the following train said that he did not remember of ever having been flagged before at this point, and had intended to make the stop before reaching a railroad crossing just beyond the stop board, and that if flagged, he was expecting to be given a fair opportunity to stop his train if the occasion demanded it. In this accident, each of the employees directly involved was depending on the other man to observe the requirements of the rules and disregarded his own responsibility.

A head-end collision between a passenger train and a freight train occurred within yard limits on a clear day under the following circumstances:

Rule 93 authorized the use of the main track, protecting against first-class trains, but in this particular yard, timetable instructions further required all trains to run so as to stop within half the range of vision. The passenger train was about 10 min. late and the freight train was occupying the main track under authority of Rule 93 the flagman giving what he considered ample protection, in view of the timetable provision requiring all trains to operate under control, with the result that when the engineman of the passenger train failed to comply with this provision, he was unable to stop his train within the distance afforded. The various rules governing the movement of trains through this yard resulted in an overlapping of responsibility wherein each of the employees involved is likely to place dependence upon the restriction placed on the other employee rather than upon the proper performance of his own duty.

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Superintendent's Responsibility in Public Relations*

What the operating officer can do to promote the interests
of his railway with the public

IN the last 20 years, the railways have made remarkable improvements in their service, and today the public is enjoying the benefits of those improvements at a price substantially below that of any period in transportation history.

The development and publicity given streamlined passenger trains has done much toward making people more railminded. The interest evidenced by the millions of people who inspected these trains, and the public's co-operation in the exhibitions given and test runs made, shows that romance still prevails in the railroad field; that the public seeks information about our business and is willing to meet representatives of the railways more than half way.

The industry has laid a foundation on which its personnel can build. The division superintendent can be of inestimable value in doing this by recognizing the important part he plays in promoting friendly and co-operative relations with the public. He should recognize that public relations work relating to his railroad is a major part of his job—not merely incidental.

Through the years, the railways have been regarded as cold, impersonal organizations because the local officers, headed by the superintendent, have been too busy to be friendly with the citizens in their territories. While, of course, it is important to call upon those shippers from whom a substantial volume of business is obtained, there is a vast field for a better understanding of mutual problems and an untapped reservoir of new business being constantly handled by the so-called small shipper in the smaller communities. As a concrete example, not long since a superintendent was transferred to a new division, and, in acquainting himself with the territory, called upon a merchant in a small town merely to make his acquaintance, and was informed that he was the first superintendent who had ever been in the shipper's place of business. As a consequence, business previously handled by truck was transferred to the railroad.

While actually the superintendent is the head of the operating department on a division, he can, by being a good public relations man himself, cause all of his subordinate officers to become not only good-will representatives but also supplementary traffic solicitors. Too much emphasis cannot be placed on the importance of a superintendent causing a public-spirited attitude to permeate through his organization. Every employee on every division is a potential public relations man but it is only by example that a superintendent can hope to have a public relations organization.

Many railroads have established public relationship departments and are contacting the public through luncheon clubs, chambers of commerce, public schools, and civic organizations. However, we have not as yet

scratched the surface; there is a tremendous reservoir of public interest in our business and an earnest desire on the part of the public for a better understanding and closer contact with our local officers.

The superintendent can do much to supplement the work already being done by establishing closer personal contacts, and cultivating the people with whom he lives, since he represents the railroad as a whole and his policy is judged to be that of the system. It is a recognized fact that at many points where the railroad is the largest industry in the community, few of the townspeople have ever been near the place that provides them with the means of earning a livelihood. The superintendent can do much to improve his and the railroad's standing in the various communities by organizing tours for groups of the local citizens, including students in the upper grades, and high schools, to view the rail plant. The interest aroused by viewing the operations of the yard, enginehouses and switching is one of the easiest and quickest ways to cement friendly relations.

The superintendent's work should be so planned as to enable him to meet and know the customer; establishing himself as an integral part of the territory he serves, by keeping in touch with the needs of the shipper; working with chambers of commerce, luncheon clubs, civic clubs, city and county authorities. Much can be done to influence public opinion; avoid the inception of adverse legislation, and localize public sentiment so he will be consulted and permitted to handle direct with his public many problems that would ultimately reach him through the general office.

Co-operation with the traffic department is of vital importance. Working with it by calling on shippers in company with the division freight or passenger agent and evincing an interest in that department's welfare as well as a willingness to help with its problems. Such action is not only desirable, but necessary. The creation of a mutual understanding of the problems with which the superintendent and local traffic department representative are faced is of paramount importance. Many questions that would ordinarily be referred to the general office can be handled by these men on the ground. Such handling eliminates correspondence, avoids misunderstandings, and promotes a spirit of co-operation that cannot fail to have a salutary effect, and enhances the value of the respective departments to the railroad.

Harmony in the division ranks will do much toward creating harmony and good will with the public. The superintendent, being the local representative of the railroad, is looked upon by the public as the outstanding man in the organization, and any conflict between him and any of his departments tends to detract from the objective. It should be, and is, his function to build from within by establishing departmental harmony, ever keeping in mind that the best solicitor is satisfactory service and pleasant contacts. The operating depart-

* Abstract of a report presented before the convention of the American Association of Railroad Superintendents by a committee of which W. E. Fuller, assistant to vice-president, Chicago, Burlington & Quincy, was chairman.

ment is the "delivery department" and the traffic the "sales department." By pulling together, each having a sympathetic understanding with the other department and endeavoring to educate the officers and employees on the division along these lines, a united front is established.

The attitude of the individual toward the customer is the yard stick by which the public measures the railroad. Every effort should be made to create a favorable impression, and one of the best ways to do that is to show an interest in the other fellow's business, following up with the best service possible. The superintendent should, by example, set the standard in service and contact. He should know his men, help them to help themselves, always keeping in mind his responsibility to the company, to the public, and to his men; being prepared to select from his territory, men with ability, tact, willingness to accept responsibility, good judgment, and capacity to grow to fill any vacancies that may occur. The superintendent alone is responsible for the type of organization existing on his division and, by example, he must set the standard of service and co-operation, both within and without, and by so doing he will be assured of co-operation from his executives, his subordinates and the public.

H. R. Cole (Erie) and F. Cizek (D. L. & W.) described the employee solicitation organizations that have been built up on their railroads. On both lines competition in securing the most freight is stressed between the various departments and the various divisions. The success of such organization in promoting social affairs and, in general, increasing the acquaintanceship of employees with each other was also described. They also related numerous instances of valuable traffic secured through such employee organizations.

J. P. LaBarge (M. P.) described the activities of booster clubs on his railroad, and pointed out the necessity for giving the employee credit for business secured. K. Johnson (C. R. I. & P.) stated that each superintendent on his railroad has a light inspection car, to enable him to do local traveling over his division and to stop at each station to interview the shippers and receivers in the town. This contact with the operating men frequently results in straightening out minor difficulties which have hitherto kept certain shippers from routing their freight via rail. C. L. Bakke (C. R. I. & P.) stated that it was the duty of the superintendent to sell the railroad to each employee and outlined efforts on his division to that end. R. C. Randall (Erie) stated he was in thorough sympathy with acquainting employees as to the facts and figures of the railroad, including revenues and expenses, and detailed cost figures. On his railroad, he said, each employee is acquainted with these things and for that reason becomes a better employee because of heightened interest in his railroad.

H. C. Rochester (C. N.) warned against putting too much stress on soliciting freight or passengers from other railroads. This results in no appreciable progress in the final analysis, he said, and the prime function of employee solicitation should be the recovery of business from other agencies of transport and not from other roads.

Chairman Aiken and H. A. Parish (C. & N. W.) told of the necessity of educating children as to railroading and described trips made over their respective railroads by parties of elementary and high school students, while R. C. Reynolds (B. & O.) suggested that the secret of success of employee organizations is to give the employee something for his efforts, in the way of social activities, or increased recognition, to make him feel that his work in securing traffic is appreciated.

The Importance of Rule 93

(Continued from page 408)

Situations of this kind result in the growth of unsafe practices.

Another yard accident, caused partly by improper understanding of yard rules, involved a silk train and a transfer train. The rule governing movements within this yard read as follows: "Within yard limits, the main track may be used, clearing the time of first-class trains, as prescribed for inferior trains by the rules. Unless the main track is seen or known to be clear, second- and third-class and extra trains must move within yard limits under control." The silk train consisted of an engine, four loaded express cars and one coach used as a caboose. This train ran, within the yard limits, at a speed of 40 or 45 m. p. h. until the rear end of the transfer train came into view around a curve about 600 or 700 ft. ahead. The engineman immediately made an emergency application of the brakes, but this merely reduced the speed of his train to about 12 m. p. h. when it collided with the train ahead.

The engineman said that when his train was cleared at his initial terminal, it was designated on the clearance card as a passenger extra, and for this reason he was under the impression that he was handling a first-class train; also, that under the provisions of Rule 93, which read that "trains carrying passengers must be protected at all times," he thought he was accorded the protection of a passenger train, and that whenever his train was cleared as a passenger extra, he felt that he had the rights of a passenger train and operated his train as though he were running a first-class train. However, had his train consisted of four freight cars, and he had been cleared as an extra, he would have operated his train through yard limits under control and at a speed such that he could have stopped in the distance he could see and without expecting other trains to be protected by flag.

The conductor also understood that his train had the same rights as it would have had if being operated as a section of a schedule.

As this train was being run as an extra, it should have been operated in accordance with the requirements of the yard rule. The engineman's misunderstanding as to the class and rights of this train was apparently based upon the fact that in the clearance card which he received at his initial terminal, his train was designated as a "passenger extra," and also upon a message received by the conductor in which the train was referred to as a "Silk Special" and prescribing a schedule of 3 hr. and 10 min. in which to make a 150-mile run, which was practically the same as the scheduled running time of the fastest first-class train between the same points. If the operating officers had intended this extra train to be operated over this territory at rates of speed corresponding with passenger train schedules, other arrangements for the operation of the train, as, for example, running it as a section of a schedule, should have been made; and in any event, measures should have been taken to insure that enginemen and conductors correctly understood and observed the rules which are provided to govern the operation of extra trains.

These and many other similar accidents which might be cited indicate the importance of Rule 93. It is of vital importance to include in this rule the provisions necessary to meet the requirements of yard operation, for if this is not done, unless specifically provided, rules intended to govern train operation at other points on the road may not be used to cover the omission.

The adoption of such a rule, accompanied by uni-

formity of understanding and strict and uniform enforcement, will reduce the penalty being paid for collisions to a much lower figure than 14 per cent.

B. & O. Bus Subsidiary Continues Growth

THE Baltimore & Ohio was one of the first railways to establish a bus-operating subsidiary, the West Virginia Transportation Company. This company was formed to provide better and more flexible passenger service in the territory served by B. & O. branch lines in West Virginia. The bus operations in West Virginia are closely co-ordinated with the rail schedules, being so arranged as to provide bus connections to branch line points for most of the main line trains.

In the past year, because of wage increases and other factors, bus operating expenses of the West Virginia Transportation Company increased between two and three cents per mile. By careful supervision of all operating factors, however, this increase is not commensurately reflected in the company's statements of profit and loss.

New equipment has attracted increased travel, and this new equipment is used to the greatest possible advantage over the most miles per day by careful scheduling. For instance, a new bus operating on the Clarksburg-Charleston run is utilized for runs between Clarksburg and Parkersburg or Clarksburg and Wheeling during times of the day when, if it were assigned to one specific route, it would be idle. By means of this maximum utilization average daily bus mileages run well over 300 on the new equipment, although there is no one run with more than half that mileage.

Co-Operation With Greyhound

The West Virginia company has developed operating agreements with the Atlantic Greyhound Lines covering competitive runs, which work out to the advantage of both companies and to the public. Between Parkersburg and Wheeling, the W. V. T. buses operate on the West Virginia side of the Ohio river and those of Atlantic Greyhound on the Ohio side. Therefore, there is little

competition for local traffic, and, instead of offering ruinous competition between the two terminals, the two companies stagger their runs between these terminals, thus providing more frequent service without the large additional cost that duplication of schedules would entail. A similar arrangement is in effect between Clarksburg and Charleston, where the two companies use the same highway except for a relatively short distance in the middle of the run. Here schedules are not only staggered, but tickets are interchangeable.

On this important run, there are numerous occasions when, because of travel increases, certain of the schedules must be doubled to take care of the traffic. Where this condition exists, a rather expensive operation generally results, since reserve equipment must be kept on hand, earning no revenue for long periods. The two companies have worked out an arrangement to minimize this expense and have eliminated the drain that would result if both companies kept reserve equipment at both terminals.

It happens that at Clarksburg, where several lines meet, the W. V. T. usually has spare equipment available in the ordinary course of its operations. A similar situation exists at Charleston with the Atlantic Greyhound. Therefore, when doubling is necessary, the W. V. T. provides the extra equipment for both lines out of Clarksburg, and the Atlantic out of Charleston, and settlement is made later on a cost basis.

New Maryland Routes

Until recently, operations have been confined to the state of West Virginia. However, with the abandonment of an electric railway between Washington and Baltimore, the important military reservation of Fort Meade, Md., was left without passenger service; and at the request of the government, the B. & O. is providing such service by means of two bus routes. One of these operates between Fort Meade and Jessup, the other between the fort and Laurel, both Laurel and Jessup being on the main line of the B. & O. between Washington and Baltimore. The buses, in connection with the train service from Laurel and Jessup, provide 9 through schedules between Fort Meade and Baltimore daily, and 9 through schedules between Fort Meade and Washington. In addition, West Virginia Transportation buses provide the school bus service on the military reservation.



One of the Fleet of Buses Purchased Last Year by the West Virginia Transportation Company

NEWS

Railroads Muffing Perishable Trade

Dept. of Agriculture cites them as reason for decline of perishable tonnage

The Bureau of Agricultural Economics has asserted that one of the major reasons for the decline in rail tonnage of fresh fruits and vegetables in recent years is the failure of the railroads to co-operate with each other and with other agencies in working out efficient methods of handling produce in the large city markets.

Figures were cited showing that rail shipments of fresh fruits and vegetables have declined by approximately 200,000 carloads during the last 7 years — from 1,000,000 carloads in 1931 to 800,000 in 1937. Total production of fresh fruits and vegetables during this period increased about 15 per cent.

"If the railroads had merely held their own relative to other methods of transportation," the Bureau said, "they would have hauled 1,150,000 carloads in 1937 instead of only 800,000. Thus in 1937 the railroads were 350,000 carloads short of holding the relative position which they had in 1931."

Reasons for the loss of this business by the railroads to the motor trucks are discussed by William C. Crow in the September issue of the Bureau's monthly publication "The Agricultural Situation." An important one, often overlooked, he says, is that "wholesale markets to which these products move are often located off the railroad." He cites a recent study by the Bureau of Agricultural Economics showing that in 35 out of 40 large cities some hauling from railroads to the principal wholesale market is necessary.

Conditions in Philadelphia, Pa., are cited as "typical." In Philadelphia, the principal market is located some distance from the railroad facilities. Shippers find it easier, less costly, and more efficient to transport produce by motor truck. The result, Mr. Crow says, is that the railroads in recent years have lost the business of hauling about 10,000 carloads a year to Philadelphia, chiefly from New York, Virginia, the Carolinas, Georgia and Florida.

"Railroads have given lip service to their desire to retain the fruit and vegetable business, and have actively opposed competing methods of transportation," according to the article. "But railroads often have overlooked opportunities for constructive action, and have sometimes taken action detrimental to their own cause."

It is alleged that in some cities the rail-

Short Lines to Meet in Chicago

The American Short Line Railroad Association will meet at the Stevens Hotel, Chicago, on October 17-18. The program includes reports of officers and of standing committees, the discussion of legislative policies, and the election of officers. Jesse H. Jones, chairman of the board of the Reconstruction Finance Corporation, will speak at a silver jubilee dinner on Monday evening. Addresses will also be presented at the convention by Dr. M. W. Splawn, chairman of the Interstate Commerce Commission, and by Henry A. Palmer, editor of the *Traffic World*.

roads have not only manifested no interest in providing rail connections with wholesalers' stores or warehouses; they have "actively objected to such rail connections with markets." In several cities, it is charged, the railroads "have built 'markets' and barred all produce except that arriving over their own lines," thus preventing their structure from becoming a real market. In a number of cities, "competing produce terminals built by railroads have resulted in wastes of millions of dollars through needless duplication of investment, and often actually made the marketing system worse than it was before."

Mr. Crow says that "constructive action demands that the railroads co-operate not only with each other but with other agencies so that complete wholesale markets may be located where deliveries by rail can be made directly into the market buildings, as motor trucks now do."

He concludes with the statements that under the present set-up, the cartage and handling charges on produce arriving by rail in the wholesale markets of some cities are twice the charges on truck receipts, that so long as wholesale markets are located off the railroads transportation by rail will be at a disadvantage.

Railroad Retirement Account

The Daily Statement of the United States Treasury for August 10 shows that up to that date the pension taxes on carriers and their employees had aggregated \$176,460,184, while administrative expenses of the Railroad Retirement Board had totaled \$4,865,564 under the Railroad Retirement Act and \$1,747 under the Railroad Unemployment Insurance Act. Benefit payments under the Retirement Act totaled \$96,298,011.

Progress on WPA Pension-Data Plan

Latimer proceeding with the project—Vallandingham to direct work

The co-operative disposition of the railroads generally, coupled with the favorable attitude of the Works Progress Administration, has prompted Murray W. Latimer, chairman of the Railroad Retirement Board, to proceed with arrangements for the project whereby furloughed railroad employees, eligible for WPA work relief, would be assigned to railroad offices for the purpose of bringing up to date the service records of prospective pensioners. The project, which was outlined in the *Railway Age* of August 20, page 290, has been placed under the direction of A. V. Vallandingham, who obtained a furlough from his position as assistant to comptroller, Delaware & Hudson, in order to accept the post in which the Retirement Board desired to have a railroad officer with experience in the matters involved.

Mr. Vallandingham is now engaged in organizing for the work which can be launched only after numerous approvals have been obtained. For example the search for general approval of the project has proceeded from WPA headquarters in Washington through the regional directors to the state directors. Specific arrangements with the latter must then proceed back for approval at Washington headquarters and by the Bureau of the Budget. It is understood that a number of state directors have already approved or indicated their disposition to approve the proposed set-up for their prospective territories.

It has been estimated that the complete job, which would create about 1,800,000 separate files of individual service records, would require a WPA appropriation of about \$18,000,000, giving employment to some 15,000 furloughed railroaders. As noted in the foregoing the railroads generally are favorable because it would accomplish for them a job which the law requires them to do. Also, as pointed out in the above-mentioned issue of August 20, the labor unions are willing, provided the standard daily rate of wage is paid to relievers, and only furloughed railroaders are given the jobs.

Chicago has been selected as the location for the general office which the plan contemplates will be set up for compiling and correlating the data. The idea of

(Continued on page 420)

Weeds Claiming North Shore Line

Steam line employees voting
on strike while union scrap
puts cobwebs on line

While railway managements are proceeding with plans to put a 15 per cent reduction in railroad wages in effect at 12:01 a. m., October 1, under the terms of the Railway Labor Act, the various railway unions are conducting a strike vote, the results of which are to be announced on September 25. On September 26, the Railway Labor Executives' Association will meet in Chicago, at which time it is expected that an analysis of the strike vote will be available, and the labor officers will be able, according to Chairman George M. Harrison: "to proceed in a manner to compel the abandonment of the wage reduction program."

The decision to make the wage reduction effective on October 1 was arrived at by the Carriers' Joint Conference Committee on September 10, following the flat refusal of the employees to agree to arbitration by a board which would have been empowered by law to render a decision binding to both employees and managements. This rejection of arbitration by the employees left the managements with but one action to pursue, namely, to proceed with the necessary steps to put the wage reduction into effect at the earliest date permissible under the Railway Labor Act.

"The law provides," the carriers' statement says, "that no change can be made in railroad rates of pay for 30 days after the formal termination of the mediation proceedings. Naturally, the law will be scrupulously observed by the carriers. Mediation proceedings were concluded by the Board on August 31.

"At the request of the board, the committee representing the railroads agreed to submit the question of a wage reduction to an arbitration board, but the employees refused and instead are taking a strike vote.

"The original 15 per cent reduction notices were served by the individual railroads on the employees on May 12. These notices remain unchanged, except for the fact that the original effective date of July 1 has been postponed for three months by the processes of the Railway Labor Act. Under this Act, no change in rates of pay can be made while the question at issue is being dealt with in conferences between representatives of the carriers and of their employees; in mediation proceedings conducted by the National Mediation Board; or, as stated, for 30 days after the mediation is officially ended.

"Although the carriers' committee agreed to arbitration, the representatives of the employees rejected the offer extended to them by the National Mediation Board. This refusal of the employees to agree to arbitration means that, unless and until some further development arises, the wage reduction specified in the notice of May 12 will become effective 30 days after

the formal termination of mediation on August 31, or at 12:01 a. m., on Saturday, October 1, 1938."

Meanwhile, grass and weeds are growing on the right of way of the Chicago, North Shore & Milwaukee, and 1,300 employees have been deprived of their source of income by reason of jurisdictional difficulties on that railway involving the A. F. L. affiliate, the Amalgamated Association of Railway & Motor Coach Employees of America, on the one hand, and the Brotherhood of Locomotive Firemen & Enginemen, the Brotherhood of Electrical Workers, the Brotherhood of Railroad Trainmen, and the Order of Railroad Telegraphers, on the other hand. Although several federal conciliators have been at work on this strike since it was declared on August 16, no progress has been made in getting the warring union factions together. The Amalgamated Association, which has had an exclusive contract with the C. N. S. & M. for 19 years, maintains that unless it is given exclusive bargaining rights, it will meet any attempt to operate with the other faction by calling a strike of employees of the entire Chicago elevated railway system, over which the C. N. S. & M. operates for several miles, and whose workers are also members of the Amalgamated union. On the other hand, the steam railway unions insist that if the Amalgamated union is recognized, they will block operations by calling a strike, if necessary, on the Chicago, Milwaukee, St. Paul & Pacific, which owns a still further section of the right of way over which the C. N. S. & M. normally operates.

This strike was originally called when the management of the railway, following extensive hearings, was given authority by the federal court to put in a wage reduction of not more than 15 per cent, which was to be on a sliding scale, predicated on the gross income of the road each month. Since the employees refused to appear at the joint hearings before the master in chancery, and also refused to accept the reduction, the court gave the receivers of the railway authority to shut down the entire line if the wage cut was not accepted. The wage reduction, however, has long since ceased to be an issue, the present stumbling block being solely the question of who shall represent the employees, a matter in which the management is powerless to intervene, since it is specifically restrained by law from doing so.

On September 14 the National Labor Relations Board, which has been endeavoring to determine which union should represent the employees, finally concluded to postpone decision on this matter until the Interstate Commerce Commission decides the status of the North Shore Line as a railroad in another case now pending before it.

Final Express-Rate Hearing

Final hearings in connection with the Ex Parte 126 express rates case will be held before the Interstate Commerce Commission's Division 7 at Washington, D. C., on September 29. Members of this Division are: Commissioners Aitchison (chairman), Porter and Caskey.

Transport Clinic Begins Its Work

C. of C. conference discusses
the revision of the rate-
making rule

Revision of the rate-making rule and the power of the states as to rates drew the first attention of the United States Chamber of Commerce's Transportation Conference which opened on September 14 with 70 representatives of transportation, shipper, and financial interests participating. George H. Davis, president of the Chamber, was chosen as chairman of the conference, and a committee consisting of Samuel T. Bledsoe, president of the Atchison, Topeka & Santa Fe; Arthur M. Hill, president of the Atlantic Greyhound Corporation; and Sydney Anderson, vice president and secretary of General Mills, Inc., was appointed to meet the press after each session.

Mr. Bledsoe admitted to newsmen that the conference was called principally to formulate a legislative program for the railroad industry which could be presented to the next session of Congress. Seemingly, the first day's work was largely devoted to a discussion of the Association of American Railroads' plan of railroad recovery and rehabilitation which has been widely publicized during the last few months.

Briefly, this program consists of the following topics: (1) Revision of the rate-making rule, (2) power of the states as to rates, (3) consolidations, (4) loans to railroads, (5) repeal of land-grant statutes, (6) grade crossings and railroad bridges, (7) railroad boards of adjustment, (8) government competition, and (9) reparation.

Mr. Bledsoe admitted that the conference had received some 59 suggestions from various individuals, many of whom were not in attendance at the conference. A statement from the conference pointed out that "in considering which of these suggestions appear to call for first consideration of the conference the committee has had in mind the importance of taking up major non-controversial topics upon which it is hoped agreement can promptly be reached."

In addition to the A.A.R. suggestions, the conference also received a set of 10 suggestions from Emory R. Johnson, professor of transportation at the University of Pennsylvania. Professor Johnson's suggestions followed the general lines of those of the A.A.R. with the exception that he suggested the establishment of a special court of three judges to handle all reorganizations, and a statute requiring railroads to obtain the Interstate Commerce Commission's approval of the purchase of stock of other railroads and of non-railroad companies. He would also have commission regulation, but not prohibition, of railroad holding companies.

Mr. Bledsoe admitted that considerable time was spent in the discussion of the first two points of the A.A.R. program,

namely, the revision of the rule of rate making and the power of the states as to rates. The A.A.R. suggested that the rate-making rule be revised so as to embody the principle of a fair return on investment, and in such a way as to recognize the right of management to fix rates that will accomplish this purpose.

On the subject of the power of the states as to rates, the A.A.R. memorandum suggested that the Interstate Commerce Act be amended so as:

(a) To enable the commission, in any proceeding of a general character, whether involving all rates or rates on a particular commodity, to make findings as to what should be the basis of intrastate rates so as to avoid discrimination against interstate commerce and so that the intrastate rates may go into effect contemporaneously with the changes in interstate rates; and

(b) To enable the commission to suspend a reduction in intrastate rates where there is a prima facie showing that a reduction in intrastate rates would unlawfully discriminate against interstate commerce.

The A.A.R. recommendations also included a statement to the effect that the government should continue to make loans to needy railroads on as liberal a basis "as is consistent with reasonable assurance of repayment." Mr. Bledsoe said that the conference seemed favorable to this proposition and that there was no objection expressed by any of the delegates. He also pointed out that none of the shippers in attendance had voiced any objection to the revision in the rate-making rule, but emphasized the fact that they still had another day in which to discuss the proposition.

Generally speaking, he continued, there was no criticism of the A.A.R. plan. Also, he pointed out that some of the delegates agreed with Professor Johnson's suggestions for a legislative program. Mr. Hill told his hearers that the bus people had not come with any definite program and that to date they had not disagreed with the railroad plan. He also said that he believed the truck people were in the same position as his group.

Mr. Bledsoe also admitted that there had been some discussion of the question of labor legislation, but declined to comment further until the conference had discussed it at greater length. Asked as to whether or not the group would discuss the pending wage reduction problem, he said that he did not think it would take any stand on it. Instead of formulating a definite program at this time, Mr. Bledsoe thought that the conference would probably adjourn at the end of the second day and appoint a committee to draft a set of principles for submission to the body at a later date.

L. N. E. R. Runs Excursion with 1888 Equipment

The London & North Eastern (Great Britain), on August 24, operated a half-day excursion from London to Cambridge using the equipment of its original "Flying Scotsman" of 1888. The passengers were limited to the accommodations available of 170 seats and the train of "period"

cars was hauled by "single-driver" No. 1 which was withdrawn from active service in 1910 and is customarily kept in the Railway Museum at York. This locomotive and train made a demonstration run on June 30 in celebration of the 50th anniversary of the "Flying Scotsman" run between London and Edinburgh.

Ticket Agents to Hold Sales Meeting at San Francisco

The annual sales-educational meeting of the American Association of Ticket Agents will be held at San Francisco, Cal., on October 12 to 15. Subjects to be discussed include tariffs, uniformity of time tables, duplicate sales, advertising, functions of a traveling representative, hand baggage, increased sales and personal appearance.

Acme Fast Freight Common Carrier Application

The effective date of the Interstate Commerce Commission's order in the case involving the status of Acme Fast Freight, Inc., has been postponed until October 31. The commission acted after "further consideration of the record and of the petitions of applicant and National Carloading Corporation." The commission's decision in this case was reviewed in the *Railway Age* of July 23, page 166.

P. R. R. Coal Pier Destroyed by Fire

An 800-ft. pier owned by the Pennsylvania on the Hudson river shore at Jersey City, N. J., and used for marine coaling operations, including both the general trade and the harbor craft of the railroad itself, was rendered a total loss by a spectacular fire which started about 2 a.m. on September 8. P. R. R. officers do not attempt at present to estimate the cost of replacement, but report that the pier, some 35 to 40 ft. in height, which collapsed with eight loaded and one empty coal hopper cars, must be entirely rebuilt.

Shippers Board Meetings

Shippers Regional Advisory Board meetings have been scheduled for September and October as follows: Trans-Missouri-Kansas, September 20, at St. Joseph, Mo.; Great Lakes, September 20-21, at Buffalo, N. Y.; Allegheny, September 21-22, at Oil City, Pa.; Southwest, September 22, at Houston, Texas.; New England, September 22-23, at Manchester, N. H.; Pacific Northwest, September 22-23, at Spokane, Wash.; Ohio Valley, September 27, at Louisville, Ky.; Atlantic States, October 4-5, at Albany, N. Y.

P. R. R. Scholarships Awarded

Announcement has been made of the award of three college scholarships to sons of Pennsylvania employees, effective with the opening of the current academic year. The Frank Thomson scholarships, two in number, have been awarded to J. L. Leonard, Jr., Sewickley, Pa., son of J. F. Leonard, Sr., engineer bridges and buildings, Pittsburgh, and to J. C. Hoopes, Harrisburg, Pa., son of E. L. Hoopes, division engineer, Philadelphia division, Harrisburg. Both winners will matriculate at Princeton University. The William Henry

Brown Memorial scholarship goes to J. R. Blizzard, Norwood, Pa., stepson of W. O. Tinley, locomotive engineman, Maryland division.

Trans-Missouri-Kansas Shippers Board Meeting

The fifty-second regular meeting of the Trans-Missouri-Kansas Shippers Board will be held at the Robidoux Hotel, St. Joseph, Mo., on September 20. Reports, discussions and addresses at this meeting will include timely subjects of interest and importance to the railroads, including addresses on, "Resume of the Wheat Movement During Peak Loading," by Frank A. Theis, president, Simond-Shields-Lonsdale Grain Co., Kansas City, Mo.; "The National Transportation Situation," by L. M. Betts, manager, Car Service Division of the A. A. R., Washington, D. C., and "Should Land Grant Rates Be Continued?" by W. H. Fitzpatrick, manager, Chamber of Commerce, St. Joseph, Mo.

Bituminous Rate Hearing October 17

The railroad petition for continuance beyond the December 31 expiration date of the Ex Parte 115 increases in bituminous coal rates has been assigned by the Interstate Commerce Commission for hearing at Washington, D. C., on October 17. Commissioner Aitchison will preside at these sessions which will be followed by oral argument before the full commission on October 24, or "if the further hearing shall not then be concluded, as soon thereafter as counsel can be heard."

Bus Association Asks Interpretation of Hours of Service Rule

The National Association of Motor Bus Operators has petitioned the Interstate Commerce Commission for a rehearing of the motor hours of service case (Ex Parte MC-2) insofar as the first paragraph of Rule 5 of the appendix to the commission's order of July 12 may be applicable to motor carriers of passengers over regular routes on regular schedules and between fixed termini. The paragraph requires that drivers shall keep a log of each trip but exempts carriers "engaged in mass transportation and operating on frequent and regular schedules."

The commission's decision in this hours of service case was reviewed in the *Railway Age* of July 30, page 188.

U. P. Forming Women's Travel Department

The Union Pacific is establishing a women's travel department with more than 60 trained women making up its personnel. On June 16, Avis Lovdell, one of the four women passenger agents of the Union Pacific, was made special representative of the president to head a special women's department with headquarters in Los Angeles. Some time ago, according to W. M. Jeffers, president, the railroad realized the need for particular attention to women travelers and as a result established special coaches for the exclusive use of women and young children on Challenger trains. As a result of the success of these cars,

further study was made which showed that 60 to 70 per cent of railroad passengers are women. These experiences led to the establishment of a women's department.

R. R. Golf Outing at Reading

Railroaders and the supply fraternity of eastern territory are offered two days of golf and other diversion at Reading, Pa., on September 28-29, under the auspices of a general committee headed by C. A. Gill, general manager of the Reading and president of the New York Railroad Club.

Reservations for hotel accommodations must be made by September 24, at latest, by application to Paul A. Flickinger, Berkshire Hotel, Reading, enclosing a check payable to P. J. Christy for \$8, which will cover greens fees, luncheons and other incidental expenses.

The Jersey Central will operate a special train from New York (leaving Liberty street terminal at 3 p. m., E. S. T.) to Reading on September 28 to accommodate the participants in this outing (round-trip fare, \$3.85).

New England Board Announces Program

The New England Shippers Advisory Board will hold its 29th regular meeting on September 22 and 23, at the Hotel Carpenter, Manchester, N. H. The program will feature proposed legislative programs for transportation. The invited speakers will be Senator H. Styles Bridges and Donald D. Conn, executive vice-president, Transportation Association of America; the latter will talk on "The Transportation Program, What It Means and How It Can Be Made Effective." Important committee reports on the docket include comments of the Legislative committee by W. H. Day, manager, transportation bureau, Boston (Mass.) Chamber of Commerce, and a discussion of freight tariff simplification by J. H. McCann, transportation manager, Associated Industries of Massachusetts.

G. W. R. Orders Rail Cars for Train Operation

The Great Western (Great Britain) has placed an order for 20 additional Diesel-powered rail cars to supplement its existing fleet of 18. Those destined for main line services will be coupled together to form four-car trains and used to replace present single cars which, in giving what the British term a "business man's service" between Cardiff and Birmingham, and which have developed traffic above the capacity of present vehicles. The new cars will reach a maximum speed of 70 m. p. h. and will provide accommodation for 104 passengers, together with buffet and salons.

Remaining cars intended for branch line services will be geared to reach a maximum speed of 40 m. p. h. They will be capable of hauling additional cars totaling 60 tons, equivalent to two standard 60-ft. coaches. Two of these cars will be fitted with a dual-range gear for a maximum speed of 60 m. p. h. with light loads or single car operation. Each of these

cars will provide seating capacity for 48 passengers. One car of the group is being built solely for carrying parcels to supplement an earlier parcels rail car which has been operating for two years in the London area. The two cars together will pick up traffic that otherwise would be carried on passenger trains and will thus reduce delays to passenger-carrying trains formerly caused by long waits in the handling of light express and freight shipments at stations. Controls of all the cars will be of the electro-pneumatic type for multiple-unit operation.

Club Meeting

The Eastern Association of Car Service Officers will hold its regular fall meeting on September 29 at the Governor Clinton Hotel, New York. The subject selected for special consideration will concern the adoption of policies and practices in the handling and short routing of empty equipment.

The October meeting of the Car Foremen's Association of Chicago will be held at the La Salle Hotel, Chicago, on October 7. A program of entertainment and election of officers is scheduled.

The Car Department Association of St. Louis will hold its October meeting on October 18, at the Hotel Mayfair, St. Louis, Mo. H. R. Rich, entomologist, Enoz Chemical Company, Chicago, will present a paper entitled "Insect Control in Passenger and Freight Cars." Pictures, slides and hundreds of living insects in glass mounts will be shown.

S. A. L. Premier Winter Train to be Diesel Hauled

Diesel electric power is to haul the Seaboard Air Line's "Orange Blossom Special" on its initial trip this December by reason of scheduled delivery of nine new Diesel electric locomotive units ordered recently by the road. An additional new feature of the new service will be the change of the Seaboard Air Line's northern operating terminus from Richmond, Va., to Washington, D. C., and the operation of the new locomotives through to the Capitol City.

It is expected that the locomotive units will be operated chiefly in groups of three, each group having control cabs on both ends. "A" units carry the cabs, while "B" units are fitted for service between "A" units. Each "A" unit, however, is in reality a 1,800-hp. locomotive and can be operated separately. Likewise, each "B" locomotive can be coupled to a single "A" unit and the extra three "A" units used separately. Each locomotive carries two 900-hp., 12-cylinder, V-type, two-cycle General Motors Diesel engines.

Increased Patronage of "Daylight"

Passenger travel on the "Daylight," fast Southern Pacific train between Los Angeles, Cal., and San Francisco, has increased greatly since the celebration of its first anniversary on March 21, and especially since July 1, when the 1½ cent passenger coach fare went into effect in that territory.

On the first anniversary of this train, as reported in the *Railway Age* of May 14,

the Southern Pacific claimed the "Daylight" to be the world's most heavily patronized one-section, long-distance daily train. Since that time increased traffic has forced this company to run extra sections of this train frequently, running 7 such extra sections in June, 25 in July, and 52 in August. The total traffic from March 21, 1937, when this train was installed, to August 31 this year, has been 384,592 persons, 191,012 handled southbound and 193,580 northbound. On July 1, the consist of the "Daylight" was increased by adding a chair car. In July and August of this year, the average number of passengers carried by this train totaled 1013 daily, an average of 508 southbound and 505 northbound, as compared with an average total of 695 passengers carried daily in both directions in the first 12 months of this train's existence.

Enthusiast Trips

The Boston & Maine will operate on Sunday, September 18, a 400-mile trip for railroad enthusiasts out of Boston, Mass., covering the Merrimack River valley, and the White Mountains. The train will pass through Lowell, Mass., and Concord, N. H., to Woodsville where inspection will be made of Boston & Maine, Canadian Pacific and Montpelier & Wells River facilities. Thence the trip is to continue through White Mountains past Mt. Washington and over the famous Frankenstein trestle through Crawford Notch and via the Maine Central to Intervale, N. H. The trip is then routed over the Conway branch of the Boston & Maine to Dover, N. H., thence to Lawrence, Mass., and return to Boston.

The Central of New Jersey will operate a 35-mile "Off-the-Beaten" Lane trip on a steam lighter in lower New York harbor on the afternoon of Saturday, October 1. The boat will pass completely around Staten Island. A buffet luncheon will be served on board.

Idaho and Arkansas Intrastate Rates

The Interstate Commerce Commission has ordered an investigation into the refusal of the Arkansas Corporation Commission to allow increases in intrastate rates on certain commodities corresponding to increases allowed by the commission last spring in Ex Parte 123. The commission will seek to determine whether the state commission's action results in undue preference or prejudice as between persons and localities in interstate commerce on the one hand and intrastate commerce on the other. A hearing will be held on October 10 in Little Rock, Ark.

The products on which the state commission has refused to allow increases include petroleum and its products, asphalt, silica sand, and less than carload quantities of cotton and brick.

At the same time the railroads serving Idaho have asked the commission to institute an investigation of the refusal of the Idaho Public Service Commission to allow rate increases on intrastate shipments corresponding to those allowed by the commission in Ex Parte 123. The carriers also ask that the Idaho commission be required

to allow them to put into effect intrastate passenger rates which correspond to those approved by the commission on November 1, 1937. The railroad petition alleges that in view of the lower intrastate rates now being charged, passengers traveling in Idaho are not bearing their fair share of the cost of the service. It also contends that the lower intrastate freight rates discriminate against interstate shippers and are a burden on interstate commerce.

August Employment 1.05 Per Cent Above July

Railroad employment increased another 1.05 per cent—from 929,477 to 939,268—during the one-month period from mid-July to mid-August, although it was down 19.22 per cent from August, 1937, according to the Interstate Commerce Commission's compilation, based on preliminary reports. Increases over July were reported for all groups except executives, officials and staff assistants (off 0.3 per cent), and professional, clerical and general (off 0.11 per cent). Maintenance of way and structures forces were up 2.31 per cent from the previous month but down 24.36 per cent under August, 1937; maintenance of equipment and stores, up 1.91 per cent from July, down 26.55 per cent from August, 1937; train and engine service, up 0.24 per cent and down 16.55 per cent, respectively.

The index number, based on the 1923-1925 average as 100 and corrected for seasonal variation, stood at 51.3 in August, as compared with July's 50.7, and 63.5 in August, 1937.

Rail Show Planned by Employee Magazine Editors

At the sixteenth annual dinner of the American Railway Magazine Editors Association which will be held in Chicago on October 15, a novelty feature of the program will be the continuous operation of a 1500 ft. model railroad system, over which a model of the crack streamlined train of each road will run as the president of that line is being introduced. The principal speaker will be Fred W. Sargent, president of the Chicago & North Western, whose remarks will be broadcast over a radio hook-up. Other prominent railway executives who will be present include J. J. Pelley, president of the Association of American Railroads; J. B. Hill, president Louisville & Nashville; Ralph Budd, president, Burlington lines; E. M. Durham, Jr., chief executive officer of the Rock Island; E. E. Norris, president of the Southern; L. A. Downs, president of the Illinois Central; J. M. Kurn, trustee of the St. Louis-San Francisco; W. M. Jeffers, president of the Union Pacific; and L. O. Head, president of Railway Express Agency.

De Luxe Bus Service Started

The Ohio Greyhound Lines, a subsidiary of the Pennsylvania Greyhound, inaugurated a new de luxe bus service between Detroit, Mich., and Charleston, W. Va., on September 10, which, if proved successful, will be extended to include other express runs throughout the Greyhound

system. The new coaches are air-conditioned and seat only 23 passengers instead of the standard 37 seats. The seats are parlor car type chairs, 8 in. wider than the present standard seats. Hostesses will serve free lunches to passengers enroute. Each coach is equipped with a washroom and toilet, the first time these conveniences have been available on buses.

The Detroit-Charleston run selected is a part of a new all-Greyhound route between Detroit and other Michigan points to Florida, and the new coaches will operate via Toledo, Ohio, and Columbus, and Huntington, W. Va. They will make the 380-mile run in ten hours, at an average speed of 38 m.p.h., this being the fastest long distance bus schedule in the country. The present fastest run over this route is 13 hr. 30 min.

Would O.K. Burlington Purchase of Bus Route

J. Edward Davey, chief, Section of Finance, Bureau of Motor Carriers, has recommended in a proposed report that the Interstate Commerce Commission approve, subject to conditions, the purchase by the Burlington Transportation Company, highway affiliate of the Chicago, Burlington & Quincy, of the Arrow Stage Lines' bus operating rights on a route between Sioux City, Iowa, and Omaha, Nebr. Among the conditions is one to the effect that the Burlington Transportation Company shall not serve any point other than a station on the lines of the parent railroad, except points on U. S. Highway 73E between Tekamah, Nebr., and Winnebago, including Tekamah within this exception only as to interchange traffic at that point moving from or to points intermediate to Tekamah and Winnebago. The exception is based on the fact that the line which Arrow proposes to sell to the railroad affiliate now affords the only common-carrier passenger service over the route which it uses between Winnebago and Tekamah.

N. Y. Railroads Argue at State Canal Hearing

The Associated Railroads of New York State, in opposition to the proposed improvement of the State barge canal between Three Rivers Point and the Niagara river, to cost about \$50,000,000, presented argument at a hearing held before Col. E. H. Marks, district engineer, U. S. Engineers office, on September 8 and 9, in Buffalo, N. Y. In their brief, railroad counsel held in the main that until the present improvements in connection with the Albany-Waterford-Three Rivers Point-Oswego route of the canal have been completed and justified practically, "there can be no sound economic reason for altering the previous unfavorable reports on the Three Rivers Point-Niagara River route." Here it was pointed out that reports made by the Board of Engineers for Rivers and Harbors submitted to Congress in recent years "clearly indicated that the estimated savings were insufficient to meet the increased annual charges for the improvement and that the proposed improvement would merely duplicate access to the upper lakes now provided via the Oswego route,

a route affording greater ease and speed of navigation."

The brief estimates that the diversion of traffic from the railroads of New York state to canals in that state, on the basis of 1937 traffic, resulted in a revenue loss to the railroads of about \$21,000,000; and further that capacity use of the canal would cause a revenue loss of nearly \$37,000,000. It points out that during the past five or six years most of the railroad mileage in the state has been operated at a deficit, and that five of the 17 roads are in receivership.

Railroad Men Get Awards in Welding Paper Competition

The jury of awards of the James F. Lincoln Arc Welding Foundation, Cleveland, Ohio, announced on September 15 that J. H. Hruska, metallurgical engineer, Electro-Motive Company, La Grange, Ill., received the highest award in the railroad classification, the amount of \$2,543.88, for his paper entitled "Welded Body of Diesel Locomotive." C. B. Faverty, chief engineer, Ryan Car Company, Chicago, received \$1,526.33 for his paper "Arc Welded Underframe for Freight or Passenger Car." R. H. Redline, welding supervisor, American Locomotive Company, Dunkirk, N. Y., received \$1,322.82 for "Welded Locomotive Boiler."

Of the other awards in the railroad classification, \$712.28 went to W. C. Rockenshire, assistant superintendent, American Locomotive Company, Schenectady, N. Y.; \$508.77 jointly to E. A. Brooker, metallurgist, Bureau Construction and Repair, U. S. Navy, and F. A. Boyer, inspector, Atchison, Topeka & Santa Fe, Topeka, Kansas, co-authors; and \$508.77 to H. C. Ventner, superintendent, Sacramento general shops, Southern Pacific, Sacramento, Cal. Awards of \$305.26 went to M. A. Burke, general foreman, locomotive tender shop, Lima Locomotive Corp., Lima, Ohio. Awards of \$203.51 were received by: G. S. Edmonds, superintendent of motive power, Delaware & Hudson, Albany, N. Y., and W. Simons, superintendent of shops, Cliffs Dow Chemical Company, Marquette, Mich.

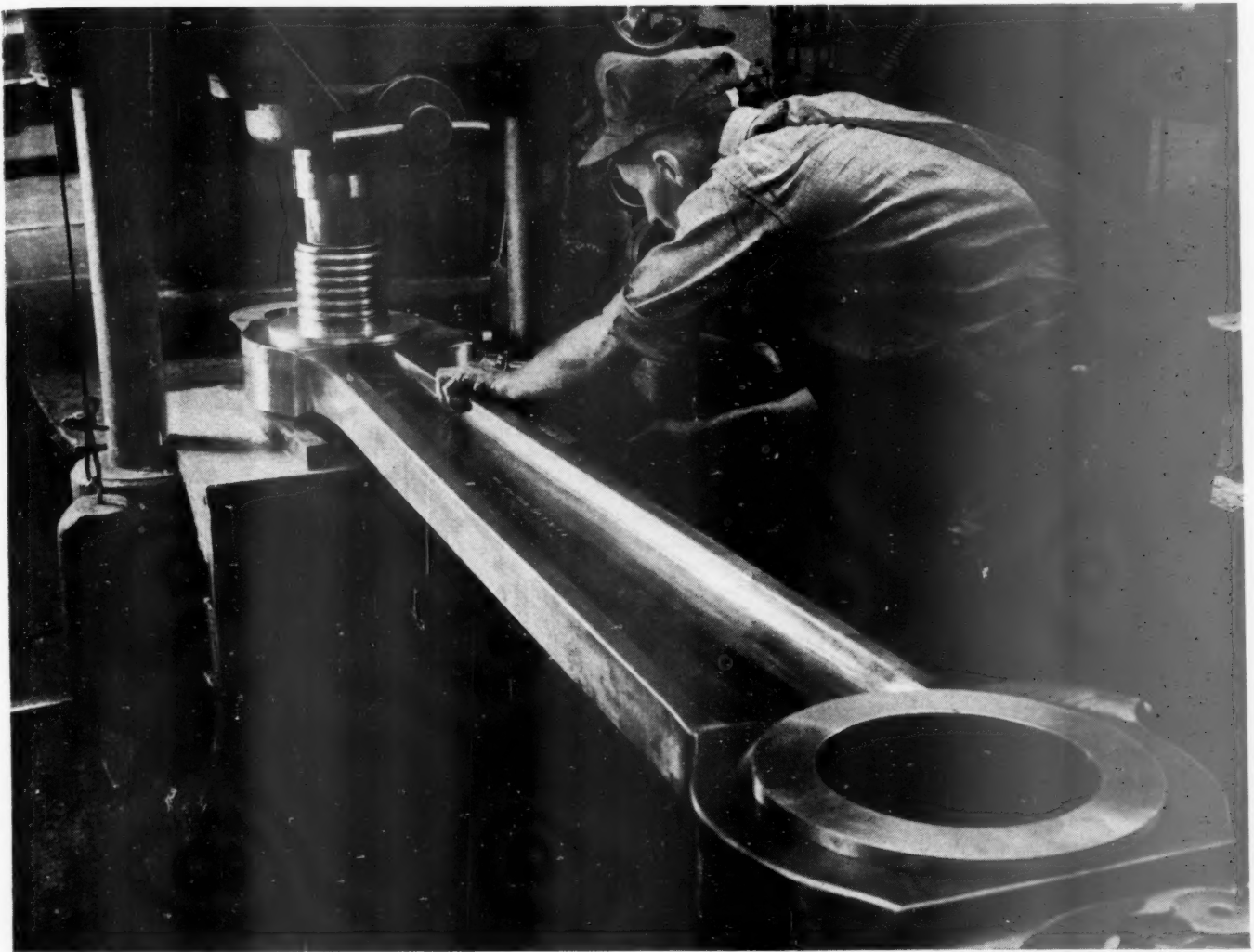
Awards of \$152.63 were received by: J. E. Muhlfeld, consulting engineer, Kansas City Southern, and R. S. Twogood, assistant engineer, Southern Pacific, Berkeley, Cal.

Hiawatha to Be Re-equipped September 19

Thirty-five new passenger cars recently constructed at the Milwaukee shops of the Chicago, Milwaukee, St. Paul & Pacific, will replace the present cars of the Hiawatha operating between Chicago and the Twin Cities, on September 19. This is the third set of equipment for this train, which was placed in service on May 29, 1935, and re-equipped on October 11, 1936. Each unit of the new train will consist of a tap room car, four day coaches having lounge rooms for men and for women, a 48-seat dining car, and three parlor cars, one of which has observation-lounge facilities. The present equipment of the Hiawatha will be used in supplementary service and on other divisions of the railroad

Continued on next left-hand page

METHODS AND MACHINERY THAT GUARD LIMA QUALITY



WHY LIMA ROD BUSHINGS *last longer*

After rod bushings are applied it is customary to finish them with a boring tool. » » » But this practice does not result in the perfect finish demanded at Lima. » » » Here a serrated mandrel is pressed through the bushing after finish boring. The mandrel is made with six steps, each larger than the other by .002", the largest being exactly the size of the desired bore. » » » This method not only produces a smooth, accurate finish but the compression of the metal by the burnishing tool closes the grain, thereby providing a perfect wearing surface and a longer-lasting bearing.

LIMA LOCOMOTIVE WORKS



INCORPORATED, LIMA, OHIO

in keeping with the road's program of introducing improved service and air-conditioned equipment on lines previously served almost entirely by conventional-type cars. Public exhibition of the new Hiawatha will be conducted at terminals and along its route. At the same time, an entirely new type of high-speed streamlined steam locomotive, one of a fleet of six recently constructed, will be exhibited although not intended primarily for service on the new Hiawatha.

National Aluminate Corporation Builds Windowless Office

The National Aluminate Corporation has completed a building at Clearing (Chicago) Ill., to house its general office and its general and special research laboratories, which incorporates a number of unique features, including the complete absence of windows, air conditioning throughout, thermal and sound insulation and indirect lighting which simulates daylight. The building is two stories in height, 135 ft. by 100 ft. in area. The exterior is of white terra cotta with decorative bands and entrance.

Air conditioning was installed to eliminate the extremes of temperature, and the dirt and odors common to an industrial district, and to produce proper conditions of humidity. Supplementing the air conditioning, the insulation was designed to eliminate noise as well as to reduce the losses and gains in heat.

Humidification is controlled centrally, but the temperature in each of the 63 rooms is controlled by an individual thermostat. Fresh air is led to the various rooms through branch ducts, and each room has its individual heating and cooling coils which are placed in the basement to facilitate servicing. Since the

heat from the lights is greater than that lost through the insulated walls, only enough heat is required to temper the cold air introduced for ventilation.

The daylight effect in the lighting is produced by mixing the light from incandescent and mercury-vapor lamps in the proper proportions. Lighting intensities of 20 foot-candles were used throughout.

Special Newspaper Issue Marks N. & W. Centennial

In celebration of the 100th anniversary of the opening of the nine-mile City Point railroad from Petersburg, Va., to City Point, on September 7, 1838, which marked the beginning of the present Norfolk & Western, the Roanoke (Va.) "Times" has published a special, 16-page N. & W. Centennial edition, devoted entirely to the history of the road, its present facilities and the personalities concerned in its history. In effect, the "Times" edition also felicitates the city of Roanoke, which as the location of the N. & W. headquarters and shops, owes its existence and growth chiefly to railroad activities.

The first page carries a popular description of the Roanoke shops, the start of a lengthy history of the N. & W. system, and photographs of six past presidents of the road and its present head, W. J. Jenks, together with a career sketch of the latter. The following two pages contain a schematic diagram of the N. & W. "family tree" and a map showing the order of extension of routes through consolidation, purchase or construction. Page four covers the road's activities in research work and contains a series of pictures of Roanoke facilities. Following pages carry descriptions of the coal-handling operations of the road, past and present motive-power and cars, veterans' activities, career

sketches and photographs of important officers, recent innovations in passenger car appointments, dining car and Pullman services, the use of machinery in roadway maintenance, the work of the freight traffic department, important freight terminals and the railroad-owned telephone and telegraph system. At various corners of the edition, are printed "thumbnail" sketches of each of the 10 directors of the road.

Freight Car Loading

Loading of revenue freight for the week ended September 3 totaled 648,039 cars, a high mark for the year. This was an increase of 27,528 cars or 4.4 per cent above the preceding week, but a decrease of 153,500 cars or 19.2 per cent below the corresponding week in 1937 and a decrease of 336,471 cars or 34.2 per cent below the same week in 1930. All commodity classifications except grain and forest products showed increases over the preceding week, while all commodity classifications except grain and live stock showed decreases under last year. The summary, as compiled by the Car Service Division, Association of American Railroads, follows:

Revenue Freight Car Loading

For Week Ended Saturday, September 3			
Districts	1938	1937	1936
Eastern	131,827	157,229	155,919
Allegheny	118,390	160,407	155,309
Pocahontas	47,297	53,304	53,360
Southern	95,775	105,908	104,834
Northwestern	97,658	140,981	122,103
Central Western	106,424	123,292	112,968
Southwestern	50,668	60,418	60,638
Total Western Districts	254,750	324,691	295,709
Total All Roads	648,039	801,539	765,131
Commodities			
Grain and Grain Products	42,022	37,267	32,662
Live Stock	14,645	14,545	16,952
Coal	116,576	135,543	130,167
Coke	5,102	10,157	9,796
Forest Products	30,093	37,620	34,344
Ore	26,593	72,415	56,098
Merchandise l.c.l.	155,143	172,112	172,182
Miscellaneous	257,865	321,880	312,930
September 3	648,039	801,539	765,131
August 27	620,511	783,476	754,097
August 20	597,918	777,150	735,476
August 13	589,561	773,782	736,578
August 6	584,050	766,182	728,371

Cumulative Total,
35 Weeks.....19,543,279 25,934,207 23,342,460

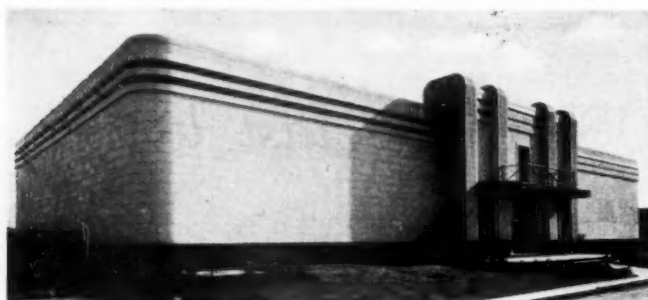
In Canada.—Heavy loading of western grain was the chief factor in raising car loadings for the week ended September 3 to 57,617, as against 53,242 cars for the previous week and 60,861 cars for the corresponding week last year, according to the weekly summary of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
Sept. 3, 1938	57,617	18,882
Aug. 27, 1938	53,242	17,713
Aug. 20, 1938	47,216	17,395
Sept. 4, 1937	60,861	22,229

Cumulative Totals for Canada:		
Sept. 3, 1938	1,553,537	708,363
Sept. 4, 1937	1,707,156	939,445
Aug. 29, 1936	1,558,105	805,012

Allegheny Board Announces Sept. 22 Meeting

The Allegheny Shippers Advisory Board will hold its 39th regular meeting at the Knights of Columbus hall, Oil City, Pa., on September 22. R. R. Underwood, pres-



The New General Office and Research Laboratory Building of the National Aluminate Corporation, at Clearing (Chicago) Ill.



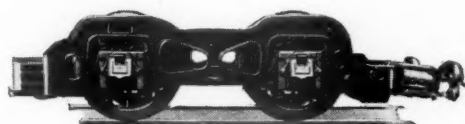
Partial View of the General Laboratory Within the New Building

GUARD YOUR Achilles Heel



An important consideration for the modern high-speed passenger locomotives is the starting factor. The locomotives are designed to maintain speeds of 90 M. P. H. . . . and more. At these speeds the destructive effect of dynamic augment is demanding changes in design, looking to reductions in the weight of revolving and reciprocating parts. This has resulted in a deficiency in starting power.

» » » To restore the design to a proper balance, the deficiency in starting power can be overcome by incorporating the Locomotive Booster. This putting to work of idle trailer weight supplies the balance of power that results in a properly co-ordinated locomotive design. » » » Let the Booster speed up starting and accelerating and protect your locomotive at its vulnerable spot.



No locomotive device is better than the replacement part used for maintenance. Genuine Franklin repair parts assure accuracy of fit and reliability of performance.

FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK

CHICAGO

MONTREAL

ident, Knox Glass Associates, Inc., is to be guest speaker at a joint luncheon with the Oil City-Franklin Traffic club; his topic will be "Railroads—Your Business and Mine." An important item on the docket is a three-sided discussion of "A National Transportation Program" by S. S. Bruce, general traffic manager, the Koppers Company; H. C. Oliver, freight traffic manager, Pennsylvania, and Charles Donley, president of the National Association of Advisory Boards. M. J. Gormley, executive assistant to the president, Association of American Railroads, will attend the meeting.

The freight claim prevention committee of railroad freight claim agents and shippers will hold a special meeting the previous day to discuss freight claim prevention methods and will have a comprehensive report and suggestions for the meeting. A special committee report on damage in box cars prepared by a group of shippers will be presented to the railroad contact committee.

Railway Manufacturers Visit Sun Valley

Approximately 180 persons, consisting principally of railway equipment and supply manufacturers and members of their families from all parts of the country, composed a special party which visited Sun Valley, Idaho, on September 6-10. This party gathered at Chicago on Sunday, September 4, and traveled from that point on a special train over the Chicago and North Western—Union Pacific, returning to Chicago on September 13. W. Averill Harriman, chairman, William Jeffers, president, and other officers of the Union Pacific, acted as hosts to the party throughout the trip.

Sun Valley was created by the Union Pacific two years ago as a winter sports resort, the layout and facilities being described in the *Railway Age* of January 23, 1937. Its immediate popularity led to extensive additions to these facilities during the next year, including the construction of the Challenger Inn, which facilities were further described in the issue of January 22, 1938. Further experience has demonstrated the popularity of this resort for summer as well as for winter travel, and it was to demonstrate the summer attractions that this trip was planned.

Rains and Fog Cause Accidents in Wisconsin

About 4 a. m. on the morning of September 11, between Wyeville, Wis., and Valley Junction, the Chicago & North Western "Limited," moving at a slow rate of speed in a dense fog, crashed into the rear end of the "Victory," which had been stopped but was pulling away. Fifteen passengers were injured, including three employees who were taken to a hospital. The locomotive of the Limited was derailed and the wooden baggage car on the Victory was telescoped.

Unusually heavy rains had prevailed in this territory during the preceding four days, and the Victory and the Limited each left Wyeville with instructions to proceed slowly. Section forces inspecting a bridge

about two miles from Wyeville flagged the Victory, and later allowed it to proceed over the bridge when the accident occurred.

Just two days prior to this accident, on the same line, a washout of the embankment caused a wreck of the Victory near Hudson, Wis., in which the engineer and a news agent were killed and two passengers and two other employees were injured. The track at this point had been patrolled a short time before the washout.

Proposed Reports on Santa Fe Motor Carrier Applications

Joint Board No. 180, composed of Ernest E. Blincoe of Kansas, John C. Highberger of Missouri and A. S. J. Shaw of Oklahoma, has recommended in a proposed report that the Interstate Commerce Commission grant in part an application of the Santa Fe Trail Transportation Company, affiliate of the Atchison, Topeka & Santa Fe, for common carrier trucking certificates on routes in Kansas, Missouri and Oklahoma. The Board would grant the necessary authority for operations between Arkansas City, Kans., and Joplin, Mo., and between Burbank, Okla., and Seminole, but would deny in all other respects the application which sought certificates for six additional routes.

Meanwhile Joint Board No. 160, composed of Mr. Highberger, Andrew Olson of Illinois and Moie Cook of Indiana, has recommended approval of the merger of the operating rights and property of the Central Illinois Bus Company into the Santa Fe Trails of Illinois. Although the transaction is already consummated the Board would not for that reason disapprove, because it was one of those deeds done "in the early stages of regulation when rights and duties under the act were imperfectly understood."

I. C. C. Institutes Stock Yard Investigation

The Interstate Commerce Commission, on September 9, on its own motion ordered an investigation to determine whether the services of public stockyards in the loading and unloading of carload shipments of livestock transported by the railroads in interstate commerce is a transportation service subject to the Interstate Commerce Act. In July of this year the commission reaffirmed its decision of December 11, 1935, to the effect that the Union Stock Yard & Transit Company of Chicago was a common carrier subject to the provisions of the Act. The company had contended that it was not subject to the commission but only to the Secretary of Agriculture under the Packers & Stockyards Act. In view of this position, the Chicago company proposed to cancel its outstanding tariffs and file new ones, but the commission, in its July decision, decided that the proposed cancellation of the company's tariffs naming loading and unloading charges on livestock at the Union Stock Yards in Chicago was not justified and canceled the suspended schedules and discontinued the proceeding.

Recently attorneys for the company have filed in the federal court for the northern

district of Illinois a bill of complaint asking for an interlocutory injunction against the commission's order. The company asked for a temporary injunction and asked the court to hear the parties and then rule that the order of the commission "has at all times been and is beyond the lawful authority of the commission and has at all times been and is unlawful, invalid, null and void, and that said order be perpetually enjoined, set aside, annulled, and suspended, and the enforcement, operation and execution thereof be perpetually enjoined."

The commission's investigation, to be known as Ex Parte 127, will cover the following points:

1. The relation, direct or indirect, between any of said stock yard companies or their officials and (a) common carriers by railroad, and (b) any person, firm or corporation receiving at or shipping from said stock yards livestock transported by railroad in interstate commerce to and from said stock yards.

2. The management or operation of said stock yard companies by common carriers by railroad, or by officials, employees or subsidiary or affiliated companies of common carriers by railroad, and the management or operation of common carriers by railroad by said stock yard companies, or by officials, employees, or subsidiary or affiliate companies of said stock yard companies.

3. Operating practices in connection with the transportation services performed by said stock yard companies.

4. Whether said stock yard companies are common carriers by railroad subject to the provisions of the Interstate Commerce Act in respect of the transportation services performed by them, or are violating any provisions of the Interstate Commerce Act.

The order has been served on 20 public stock yards, all the Class I railroads subject to the Interstate Commerce Act, and the following companies: East St. Louis Junction, Kansas City Connecting, South Omaha Terminal and the Sioux City Terminal. No date was set for the hearing.

Contracts of Contract Carriers of Bullion

Examiner A. S. Parker has recommended in a proposed report that the Interstate Commerce Commission exempt contract motor carriers of bullion, currency, jewels and other precious and very valuable articles from the requirement to execute, preserve and file contracts covering their business. He would, however, require such carriers to file schedules of their minimum charges. The proposed report comes after further hearing in Ex Parte No. Mc-12, Contracts of Contract Carriers, and Ex Parte No. Mc-9, Filing of Contracts by Contract Carriers.

Interior Department and S. P. Line Relocation Contract

Award of contracts covering the construction of the Sacramento river bridge, first crossing, the first of eight bridges that will be required in connection with the relocation of the Southern Pacific

NO. 68 OF A SERIES OF FAMOUS ARCHES OF THE WORLD



ORE RIVER BRIDGE

SWEDEN

In 1919 this 225 metre bridge situated between Langsele and Mellansel depots in Northern Sweden was completed. The main span of 90.7 metres is the largest concrete railway arch on the Swedish State Railways. The height from the foot of the rails to the low water level of the River Ore beneath is approximately 44 metres. In the background can be seen the old steel bridge which is now used for highway traffic.

» » » The Security Sectional Arch for the loco-

tive firebox was designed and developed to further the economy and effectiveness of the steam locomotive. To realize the utmost from your power be sure that when your locomotive leaves the roundhouse it has a complete firebox arch.

* * *

THERE'S MORE TO SECURITY ARCHES THAN JUST BRICK

**HARBISON-WALKER
REFRACTORIES CO.**

Refractory Specialists



**AMERICAN ARCH CO.
INCORPORATED**

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**Locomotive Combustion
Specialists**

around the Shasta Dam site, Cal., has been announced by Secretary of the Interior Harold L. Ickes. Details of bids are treated elsewhere in the "Construction" columns of this issue.

The contract between the Department of the Interior and the Southern Pacific by which the way is cleared for the Bureau of Reclamation to relocate telegraph wires and 36.4 miles of main line railroad between Redding and Delta, California, was executed on September 6. "Completion of this contract," says the Interior Department statement, "is an important step in the advancement of the construction program of the Central Valley project of the Bureau. It is necessary to relocate the Southern Pacific tracks because at present this line, following the Sacramento River Canyon, runs directly through the Shasta Dam site and the area which will be flooded by the Shasta reservoir. The new line will be taken around the dam and reservoir on the eastern side.

"It is anticipated that approximately two years will be required to finish the new section of the S. P. tracks. In the meantime, certain work will proceed on the construction of Shasta Dam as the result of the construction of a diversion tunnel at the dam site which will permit the trains to by-pass the area where work will be in progress.

"Under the contract with the Southern Pacific, which was signed also by the Central Pacific, holder of the legal title to the right of way, and by the Western Union Telegraph Company, plans and specifications for building a relocated line will be passed upon by both the chief engineer of the Bureau of Reclamation and the chief engineer of the Southern Pacific. The contract requires the Bureau to do or have done the necessary grading for the new line. It requires the S. P. to lay the ties and rails and put in the electrical signal and block system at cost plus 10 per cent, payment to be made by the United States for work actually done. The contract also requires the Bureau to construct the Pit River bridge, title to which will remain in the United States, although the railroad will be given a permanent easement for its right of way across the bridge.

"The relocated line will be single tracked, although it is required that the Bureau construct the foundations of certain structures in such a manner that double tracking may later be accomplished. A centralized traffic control system will be installed. The railroad is granted the right to use water from the Shasta Reservoir for railroad purposes. All track steel, including rails, fastener plates, signal controls, etc., will be furnished by the government to the S. P. for laying and installing in the roadbed. At the conclusion of the work, the railroad has 60 days in which to use the track on a trial basis; after acceptance of the new line, the company has a right to demand of the government within a period of 5 years payment of not to exceed \$350,000 for unusual maintenance cost actually incurred resulting from slippage, settlement, or like troubles along the right of way. The railroad is to be paid for engineering studies in the preparation and checking of detailed plans and specifications for the work."

Proposed Rules for Motor Carriers of Household Goods

Examiner S. A. Alpin has recommended in a proposed report a set of rules which he would have the Interstate Commerce Commission prescribe under sections 204(c) and 217(a) of the Motor Carrier Act to govern practices of motor common carriers of household goods and related articles. The recommended rules were evolved by the examiner after hearings in the case (Ex Parte No. MC-19) had taken up the tentative draft promulgated by the commission following conferences with and a questionnaire addressed to interested parties.

The recommended rules are as follows:

RULE 1—As used in these rules:

(a) The term "household goods" means the property of a household when a part of such household equipment or supply; furniture, fixtures, equipment and the property of stores, offices, museums, institutions, hospitals, or other establishments when a part of the stock, equipment, or supply of such stores, offices, museums, institutions, hospitals, or other establishments; and articles requiring specialized handling and equipment usually employed in moving household goods.

(b) The term "dock charge" means any charge made by a warehouse against any common carrier by motor vehicle of household goods for the use of the platform, warehouse, or other loading or unloading facilities at such warehouse, or for the privilege of loading or unloading at such warehouse, whether such charge be in a specific amount or in the form of a charge for labor or otherwise.

(c) Where any other terms used in these rules are defined in section 203 (a) of the Motor Carrier Act, 1935, such definitions shall be controlling. Where the terms are used in these rules which are neither defined herein nor in said section 203 (a), they shall have the ordinary practical meaning of such terms.

RULE 2—All common carriers by motor vehicle engaged in the transportation of household goods in interstate or foreign commerce shall establish, in the manner and form required by section 217 of the Motor Carrier Act, 1935, and by the regulations of the Commission issued pursuant thereto, rates for the transportation of household goods in interstate or foreign commerce stated in amounts per hundred pounds, and shall not establish rates upon any other basis. All rates applicable to the transportation of household goods established upon any other basis than in amounts per hundred pounds shall be canceled and superseded by rates published in accordance with this rule.

RULE 3—Each such common carrier shall determine the tare weight of each vehicle used in the transportation of household goods by having it weighed prior to the transportation of each shipment, without the crew thereon, by a certified weighmaster or on a certified scale, and when so weighed the gasoline tank on each such vehicle shall be full and the vehicle shall contain all blankets, pads, chains, dollies, hand trucks, and other equipment needed in the transportation of such shipment. Each carrier shall retain in the vehicle, subject to inspection, a weighmaster's certificate or weight ticket as to each such vehicle showing the tare weight, the date weighed and a list of such equipment.

After the vehicle has been loaded it shall be weighed, without the crew thereon, prior to delivery of the shipment and the net weight determined by deducting the tare weight from the loaded weight. The gross weight, the tare weight, and the net weight shall be shown on the freight bill.

In the transportation of part loads this rule shall apply in all respects except that the gross weight of a vehicle containing one or more part loads may be used as the tare weight of such vehicle as to part loads subsequently loaded thereon.

RULE 4—Such common carriers shall establish in the manner prescribed in section 217 of the Motor Carrier Act, 1935, and the rules and regulations issued pursuant thereto, the charges to be made for each accessorial or terminal service rendered in connection with the transportation of household goods. The tariffs establishing such charges shall separately state each service to be rendered and the charge therefor. The charges so established for packing and unpacking shall be in amounts per container, and those for other services shall be separately stated on a unit or hourly basis, whichever is appropriate. No charge so established shall be lower than the cost of performing the service. The rate for transportation of such goods shall not include the charge for any accessorial service, and no such services other than those for which

separate charges have been so established shall be rendered by any such carrier.

RULE 5—No discounts of any character whatsoever shall be authorized by tariff provisions or otherwise allowed by any such common carrier, and no rates or charges shall be established based upon prepayment of charges.

RULE 6—Such common carriers shall not include in their line-haul rates the service for which a dock charge is made on shipments received at, or delivered to, warehouses which require the payment of such dock charges. Such carriers shall provide in their tariffs that they will advance to the warehouses the amounts of the dock charges and include them in their freight bills in addition to the line-haul rates.

RULE 7—No such common carrier shall act as agent for any other such common carrier in the solicitation of shipments of household goods, in interstate or foreign commerce, between points which such agent is authorized to serve and for which it shall have established different rates than those of its principal.

RULE 8—No such common carrier nor any employee, agent, or representative of a carrier shall act as an agent for an insurance company in insuring, under any type of policy, shipments of household goods to be transported by such carrier in interstate or foreign commerce if such carrier, its employee, agent, or representative receives compensation from such insurance company.

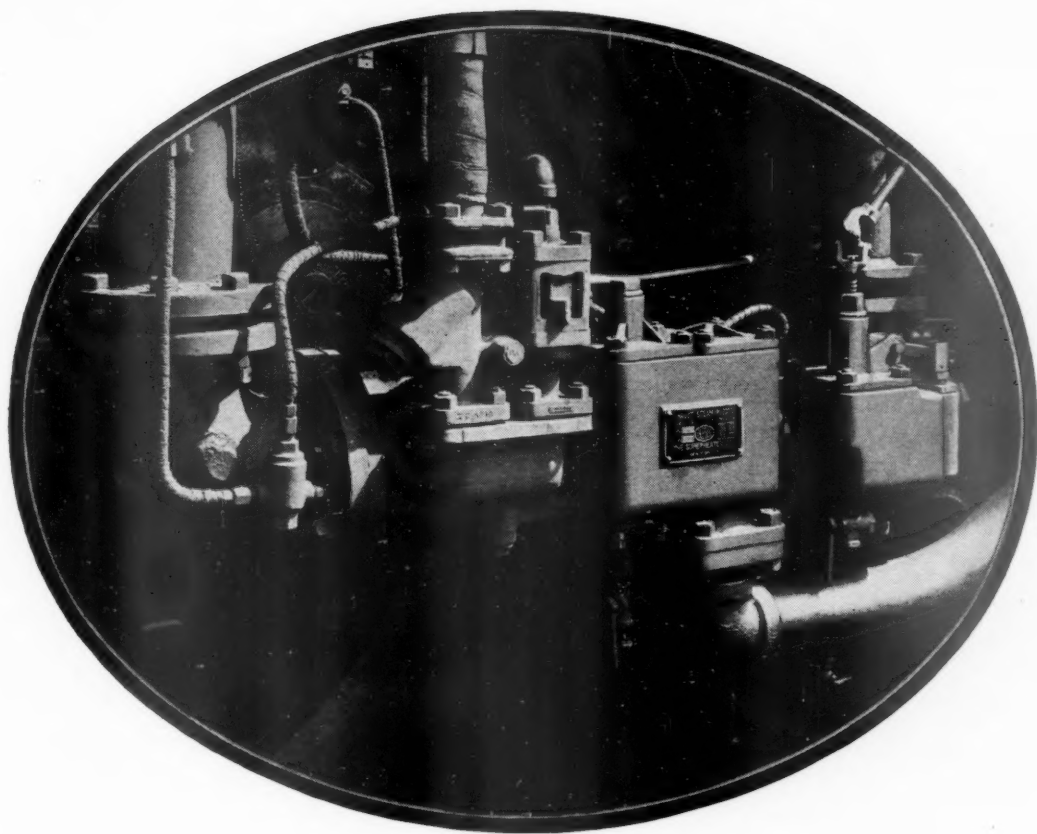
RULE 9—No such common carrier shall issue a receipt or bill of lading for household goods to be transported in interstate or foreign commerce prior to receiving such household goods for such transportation, but must issue such receipt or bill of lading when such household goods have been received.

Truck Rates in Middle Atlantic States

Hearings in connection with the Interstate Commerce Commission's probe of common carrier motor truck rates in the Middle Atlantic states territory, docketed as Ex Parte MC-20, resumed on September 12 in the New Yorker hotel, New York, before Examiner Johnston. Sessions this week were devoted chiefly to the presentation by D. T. Waring, of the Middle Atlantic States Motor Carrier Conference, Inc., of the new rate classification levels for motor trucks in the territory adopted by the general rate committee for recommendation to the I.C.C.

The committee's plan provides for the continuance of about 90 per cent of the present classification rates, apart from the reduction of certain temporarily inflated ratings, Mr. Waring testified. He urged that the proposed rate schedules be prescribed for the entire territory covered by the investigation and for all carriers within the area. At a previous hearing which opened in Philadelphia, Pa., on July 18, Mr. Waring had recommended that provision be made for uniform rules covering such services and privileges as wharfage, C.O.D., pick-up and delivery, etc. Thus, in the current hearing, he proposed that the rule for consolidating less-than-truckload shipments be prescribed for the entire territory; at the same time, his committee expected to liberalize present rulings by allowing inclusion of articles rated higher than first class under the consolidating provision. He proposed somewhat higher charges for C.O.D. shipments, explaining that the present charge of 25 cents per \$100 was established to meet railroad charges, which, he understood, have since been raised. On the whole, he declared in testimony, the new rules would provide for reductions in charges, especially in areas where the traffic is greatest.

It was brought out in cross examination that, in inflating rates of articles rated above first class, the committee has followed a formula based on weight density,



A *Supplementary* Boiler

—using no fuel

A locomotive boiler adds heat to the water at the expense of the fuel consumed.

The Elesco exhaust steam injector adds heat to the water . . . using waste exhaust steam. It is an auxiliary to the boiler—reducing its fuel consumption by the amount of exhaust steam condensed.

Increase the boiler capacity of your locomotives with this dependable equipment.

More than 20,000 of this type of exhaust steam injector are in service on railroads throughout the world.

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with higher ratings for lighter articles. Many bulky commodities, formerly afforded "any-quantity" rates, have been raised to the less-than-truckload scale exclusively, thus giving a minimum rate equal to or higher than railroad charges. Furthermore by the proposed elimination of some truckload ratings, where there is a railroad carload rating on the same commodity, truck rates will prove to be higher. In these cases the trucks don't want the traffic anyway, it was asserted. Present rates which are lower than railroad classification exceptions will, in general, be continued. The committee adopted the railroad minimum weight rulings in the case of all commodities rates below 5th class and expect that two trucks will have to be used to carry such minimums.

This week's sessions covered only classification rates; commodity rate levels are to be discussed at a later date.

Progress on the WPA Pension-Data Plan

(Continued from page 412)

locating it in Washington was rejected on the theory that the Capital would not have on its relief rolls enough furloughed railroaders with the required experience to staff such an office.

Mr. Vallandingham, whose new title is Director, Prior Service Records Project, was born July 26, 1885, in Grant County, Ky., and received his education in the public schools of Covington, Ky., and in the public and high schools and Y.M.C.A. business college at Cincinnati, Ohio. He entered railroad service in January, 1906, as assistant timekeeper in the master mechanic's office of the Louisville & Nashville at Covington, and was thereafter advanced through several clerical and accounting positions until June, 1910, when he was transferred to the general offices in Louisville, Ky. There he held various statistical and accounting positions until March, 1912, when he became chief clerk to the master mechanic at Paris, Tenn., where he remained until January 1, 1913, when he was transferred in a similar capacity to Birmingham, Ala. Next, after a brief period in public accounting practice, Mr. Vallandingham in October, 1914, joined the staff of the Interstate Commerce Commission's Bureau of Valuation where he later became accountant-in-charge and remained until September, 1920. At the latter time he left I.C.C. service to become valuation accountant in the office of the comptroller of the Delaware & Hudson with headquarters at New York. In February, 1921, he was transferred to Albany, N. Y., as auditor of capital accounts; and in May, 1929, he was promoted to the position from which he is now on furlough—assistant to comptroller. Mr. Vallandingham has been active in the Railway Accounting Officers Association and its successor, the Accounting Division, Association of American Railroads, holding most recently the chairmanship of the latter's committee on statistics along with memberships on several of its other committees.

Construction

CHICAGO, ROCK ISLAND & PACIFIC.—A contract has been awarded by this company to Oran Speer, Alvard, Tex., for 2,500,000 cu. yd. of grading in connection with the construction of the new "Arkalon Cut-off," a project on the main line between Kismet, Kan., and Hayne, 7.88 miles long, which will reduce distance between these points 3.57 miles and the curvature by 353 deg. 23 min.

CHICAGO, ROCK ISLAND & PACIFIC.—A contract amounting to approximately \$70,000 has been awarded by this company to Alexander Repass, Inc., Des Moines, Iowa, for the concrete work on two new, large double reinforced concrete boxes to be built on that company's "Short Line" south of Des Moines. One box, a double 16 ft. by 14 ft.-150 ft. long, is located near Melcher, Iowa, and the other a double 17 ft. by 15 ft.-193 ft. 6 in. long, is located near Purdy, Iowa.

NORTHERN PACIFIC.—A contract, amounting to approximately \$250,000, has been awarded by this company to Frank E. Martin, Spokane, Wash., for the construction of a new building at Spokane, containing 100,000 sq. ft. of floor space which will be leased to the International Harvester Company.

ST. LOUIS-SAN FRANCISCO.—The Ogle Construction Company, Chicago, has been awarded a contract for the construction of a 300-ton reinforced concrete coal chute at Springfield, Mo., amounting to approximately \$21,000.

ST. LOUIS-SAN FRANCISCO.—The Arkansas State Highway Commission has awarded a contract to Fred Luttjohann, Topeka, Kan., amounting to approximately \$66,000 for the construction of a reinforced concrete highway overpass at Yarbrow, Ark., which will be 376 ft. 9 in. long. The materials involved in this contract are 1,160 cu. yd. of concrete, 275,000 lb. of reinforcing steel, 45,000 lb. of structural steel and 6,190 sq. yd. of concrete paving.

SOUTHERN PACIFIC.—Contracts covering the construction of the Sacramento river bridge, first crossing, the first of eight bridges that will be required in connection with the relocation of the Southern Pacific around the Shasta Dam site, Cal., has been announced by Secretary of the Interior Harold L. Ickes. Clifford A. Dunn, Klamath Falls, Ore., was the successful bidder under schedule No. 1, with a bid of \$173,320 for the construction of the abutments, pedestals, and piers for the bridge, and alterations to Riverside Drive under the south end of the bridge. The contractor has been allowed 330 days for the completion of this work. The American Bridge Company, Pittsburgh, Pa., was awarded the contract under schedule No. 2 on its bid of \$569,100 for furnishing material, labor, and equipment, and for fabricating, erecting, and painting the bridge,

except for certain construction work to be included in the Dunn contract. About 12,000,000 lb. of structural steel and other materials will be shipped from Gary, Ind., to Redding, Cal., to be used in the construction of the bridge. Time allowed for completion of the contract is 430 days. See other particulars in news columns of this issue.

Equipment and Supplies

LOCOMOTIVES

THE TEXAS-MEXICAN has applied to the Interstate Commerce Commission for approval of a plan to issue \$200,000 of equipment trust certificates to the Reconstruction Finance Corporation to finance, in part, the purchase of seven Diesel-electric locomotives from the Baldwin Locomotive Works.

FREIGHT CARS

THE CHICAGO & ILLINOIS MIDLAND has entered into a contract with the Pullman Standard Car Manufacturing Company for the rebuilding of 100 seventy-ton gondolas.

PASSENGER CARS

SOUTHERN.—This company, which recently opened bids for six Diesel-electric powered, two-car passenger trains, according to reports, will have this equipment built by the St. Louis Car Company and the engines therefor by Fairbanks, Morse & Co. Inquiry for this equipment was reported in the *Railway Age* of August 13, page 264.

THE BOARD OF TRANSPORTATION, CITY OF NEW YORK, opened bids recently for subway cars, including four flat, three air dump, two motor service, two money collecting and one crane car. The Magor Car Corporation submitted the lowest bids for the air dump cars, the motor service cars and the crane car. This company also submitted the lowest combination bid for the air dump cars and the motor service cars. The St. Louis Car Company submitted the lowest bids for the flat cars and the money collecting cars; they also submitted the lowest combination bid for these cars. Inquiry for this equipment was reported in the *Railway Age* of July 23, page 173.

SIGNALING

NEW YORK, CHICAGO & ST. LOUIS.—Bids will be received at the office of R. L. Tindal, purchasing agent of this road, Cleveland, Ohio, until 12:00 o'clock noon (e. s. t.), September 26, for the furnishing of signal materials to be used in connection with two federal aid grade crossing protection projects in the State of Illinois.

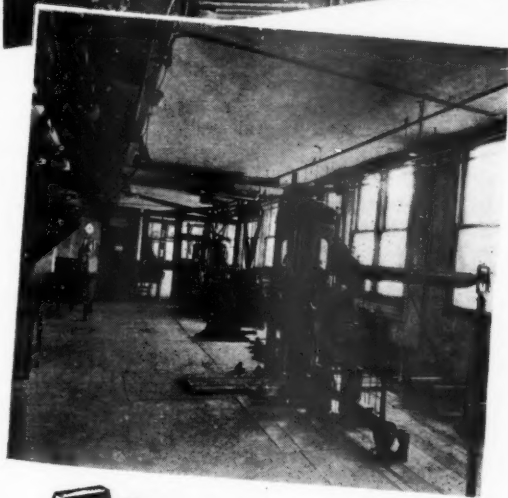
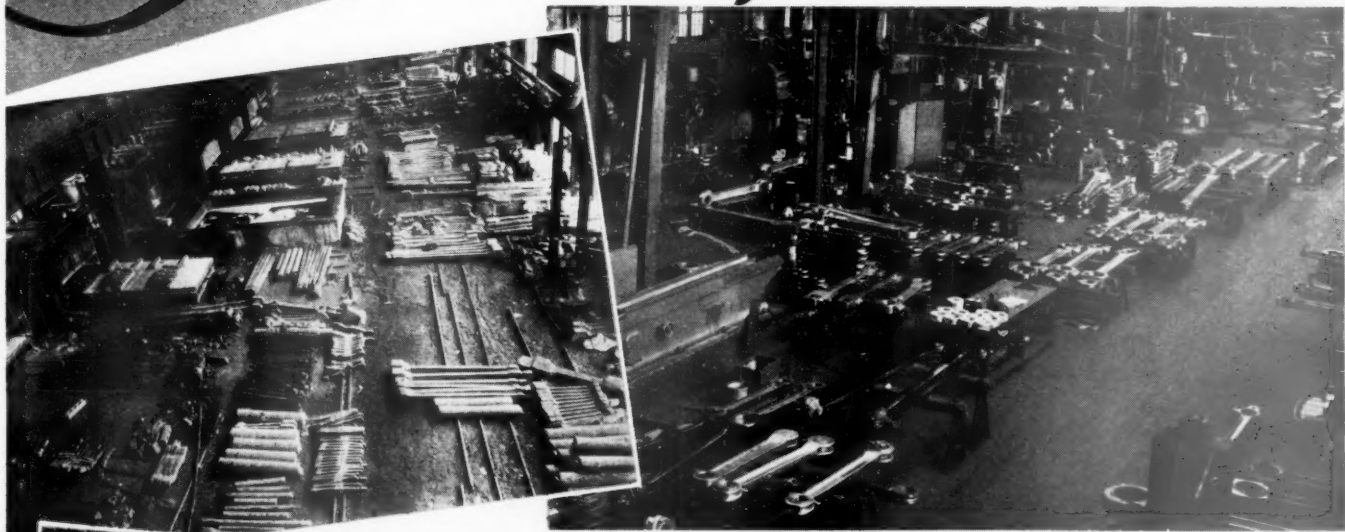
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on

Forgings

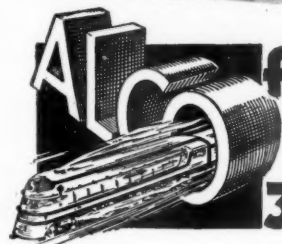
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IN TIMES of restricted expenditures, it becomes financially burdensome to keep all railroad forge shops tooled-up for maximum quality and low cost production.

But with ALCO it's different. As builders of all types of modern locomotives, ALCO must, of necessity, keep its entire manufacturing and testing facilities right up to the minute to produce the finest locomotive forgings money can produce. It is these ultra-modern plant facilities backed by a century of experience and a specially trained personnel which make up ALCO Service and which you can depend upon for your main and side rods, piston rods, axles, wrist pins, crank pins and other forgings.

ALCO Service is accurate—prompt—economical. In short it's just good business to buy ALCO Forgings.



AMERICAN LOCOMOTIVE COMPANY

30 CHURCH STREET • NEW YORK • N.Y.

Supply Trade

The United States Gypsum Company, Chicago, plans the purchase of a mill site and the construction of a modern plant at Jacksonville, Fla.

Frank B. Williams, Jr., has been elected vice-president in charge of the merchandising division of the **Westinghouse Electric & Manufacturing Company**, with headquarters at Mansfield, Ohio. He succeeds Arthur E. Allen, who has resigned.

OBITUARY

Robert B. Beale, manager of turbine sales in the central station department of the General Electric Company, died at his home in Schenectady, N. Y., on September 11.

James P. Daly, an executive in the traffic department of the Republic Steel Corporation and vice-president of the River Terminal Railway Company, died suddenly in Buffalo, N. Y., on September 8, at the age of 67 years.

George D. Bassett, retired manager of the railroad department of the **H. Channon Company**, Chicago, and formerly vice-president of **Crerar, Adams & Company**, Chicago, died on September 10 at West Chicago, Ill. Mr. Bassett was born in Batavia, Ill., on May 17, 1863. He entered railway service as a clerk in the store department of the Chicago & North Western, and on June 16, 1879, entered the employ of Crerar Adams & Company as an office boy. In 1898, he was promoted to salesman, and in 1924, to vice-president. On July 1, 1931, he went with the H. Channon Company as manager of the railroad department and served in that capacity until his retirement on February 15, 1935.

William H. Hopper, retired president of the Minnesota Supply Company, St. Paul, Minn., died suddenly on September 6 at Midlothian, Ill., after a stroke suffered the day before. Mr. Hooper was born on September 1, 1860, in Wales. His parents came to this country in 1861, settling at Grand Island, Neb. After some years in the Union Pacific car shops at Denver, Colo., and the shops of the St. Charles Car & Foundry Co., St. Charles, Mo., he entered the railway supply field at St. Louis, Mo., in 1892, with the Safety Car Heating & Lighting Company. In 1898, he was appointed general agent for the company at Chicago, Ill., and served in that capacity until 1908, when he joined the Gold Car Heating Co. He served during the World War as a civilian inspector in the Ordnance Department at St. Louis, Mo. In 1920 Mr. Hopper became associated with the Minnesota Supply Company at St. Paul, Minn., and was made president of this company in 1926, from which position he retired in 1931.

Financial

BALTIMORE & OHIO.—Hearing Set on Interest Reduction Plan.—The Interstate Commerce Commission, Division 4, has set September 22 as the date for a public hearing before Commissioner Mahaffie and Examiner A. C. Devoe on this company's plan for modification of interest charges and maturities.

COPPER RIVER & NORTHWESTERN.—Abandonment.—This road, a wholly-owned subsidiary of the Kennecott Copper Company, has applied to the Interstate Commerce Commission for authority to abandon its 195.2-mile line, extending from Cordova, Alaska, to Kennecott. The application states that the line would hereafter be without traffic because the mines which it served have been worked out.

ERIE.—Reorganization.—The Group of Holders of Erie Railroad Company Refunding and Improvement Mortgage Bonds has been authorized by the Interstate Commerce Commission to intervene in this proceeding. Members of the Group's executive committee are: Chairman, Wilfred Kurth, chairman of the Home Insurance Company; vice-chairman, H. S. Sturgis, vice-president of the First National Bank of New York; and D. C. Borden, vice-president of the National City Bank of New York.

EUREKA-NEVADA.—Abandonment.—The Interstate Commerce Commission, Division 4, has authorized this company to abandon its narrow-gage line extending from Palisade, Nev., to Eureka with a branch line from the latter point to Ruby Hill, Nev., 3.5 miles, a total distance of approximately 88 miles.

LOUISIANA & ARKANSAS.—Merger of the L. A. & T.—The Louisiana & Arkansas and the Louisiana, Arkansas & Texas have asked the Interstate Commerce Commission to amend the official plan of rail consolidation so as to include both roads in the same system. The Louisiana & Arkansas now has a petition pending with the commission asking authority to acquire the L. A. & T. and merge the two roads. Under the official plan the L. & A. is assigned to the Rock Island-Frisco system and the L. A. & T. is placed in the Illinois Central system.

MISSOURI PACIFIC.—Purchase by Missouri Pacific Freight Transportation Company.—This motor carrier subsidiary of the Missouri Pacific has asked the Interstate Commerce Commission for authority to purchase the operating rights of the Lester Truck Line operating in central Texas.

NEW YORK, NEW HAVEN & HARTFORD.—Reorganization.—The Interstate Commerce Commission has set October 21 as the date for oral argument before Division 4 at Washington, D. C. Examiner Harvey H. Wilkinson's proposed report in this proceeding (see *Railway Age* of June 18,

page 1023) recommended disapproval for the present of all proposed plans for reorganization of the road under section 77 of the Bankruptcy Act.

NEW YORK, ONTARIO & WESTERN.—Extension of Reorganization Plan Date.—Judge Murray Hulbert, of the federal district court, has extended the date by which this road is required to file a reorganization plan under Section 77 from September 20 to January 11, 1939.

NORTHERN PACIFIC.—Abandonment and Joint Operation.—This company has asked the Interstate Commerce Commission for authority to abandon a piece of track between Wallace, Ida., and Burke, 6.3 miles. The company also wishes authority to operate jointly with the Union Pacific over the latter's tracks between these two points.

RICHMOND, FREDERICKSBURG & POTOMAC.—Equipment Trust Certificates.—This company has asked the Interstate Commerce Commission for authority to assume liability for \$740,000 of equipment trust certificates.

SOUTHERN PACIFIC.—Abandonment by Texas & New Orleans.—The Interstate Commerce Commission, Division 4, has authorized the Texas & New Orleans to abandon a part of its Bayou Sale branch extending from Clausen, La., to South Bend, 8.4 miles.

TENNESSEE.—Bonds.—This company has asked the Interstate Commerce Commission for authority to authenticate, deliver and sell \$200,000 of its first mortgage 15 year five per cent bonds.

UINTAH.—Abandonment.—The Uintah, which has been operating between Mack, Colo., and Watson, Utah, 64 miles, since 1905, has asked the Colorado Public Utilities Commission for authority to cease operation, claiming the gilsonite fields, which it served, are depleted. Connections are made with the Denver & Rio Grande Western at Mack.

The road has also applied to the Interstate Commerce Commission for authority to abandon this line.

YADKIN.—Abandonment.—The Interstate Commerce Commission, Division 4, has authorized this company to abandon that portion of its line extending from Albemarle, N. C., to Norwood, 9.5 miles.

Average Prices of Stocks and Bonds

	Sept. 13	Last week	Last year
Average price of 20 representative railway stocks..	24.79	27.75	41.70
Average price of 20 representative railway bonds..	58.04	59.19	76.08

Dividends Declared

Chesapeake Corp.—35¢, payable October 3 to holders of record September 20.
 Joliet & Chicago.—\$1.75, quarterly, payable October 3 to holders of record September 20.
 Philadelphia & Trenton.—\$2.50, quarterly, payable October 10 to holders of record October 1.
 St. Louis, Rocky Mountain & Pacific.—Preferred, \$1.25, quarterly, payable September 30 to holders of record September 15.
 Southern—Mobile & Ohio Stock.—\$2.00, payable October 1 to holders of record September 15.
 Virginian.—\$2.00, payable September 26 to holders of record September 17; Preferred, \$1.50, quarterly, payable November 1 to holders of record October 18.

Railway Officers

EXECUTIVE

Robert V. White, of New York city, was elected president of the Lehigh Coal & Navigation Company at a meeting of the board of managers held in Philadelphia, Pa., on September 8. He will succeed **Samuel D. Warriner**, who has been acting as president pro tem following the resignation of Joseph H. Nuelle as president, effective May 15, to become president of the Delaware & Hudson. In becoming head of the L. C. & N., which owns the Lehigh & New England and the Lehigh & Susquehanna (the latter is leased to the Central of New Jersey), Mr. White will retire as partner of Jackson & Curtis, investment banking house, New York. He is expected also to relinquish his post as chairman of the stock list committee of the New York Stock Exchange and as a governor of the exchange. He has been a member of the board of managers and of the executive committee of the Lehigh Coal & Navigation Company since March, 1938. He is also a director and member of the executive committee of the Kansas City Southern.

Mr. White was graduated from Harvard Law School and practiced law for several years before entering the investment banking business. He will make his headquarters at Philadelphia, Pa., upon taking up his new duties on or near September 19.

George L. R. French, former receiver of the Rutland, whose resignation was noted in the *Railway Age* of July 16, was born on May 18, 1862, at Salisbury, Mass. He was graduated from Massachusetts Institute of Technology in 1884 and that year entered the service of the Burlington & Missouri River (C. B. & Q.) at Lincoln, Neb., as rodman in the engineering department, engaged on location and construction of new lines for four years, later becoming division and resident engineer. Mr. French went with the Boston & Maine in 1889, when it was enlarged by consolidation of various New England railroads, and served as assistant engineer. He then served successively with the B. & M. as track supervisor, roadmaster, trainmaster, assistant superintendent and superintendent on various divisions. On May 1, 1912, he resigned to become general superintendent of the Rutland and was promoted to acting general manager in 1923 and general manager in 1924. Mr. French was appointed assistant vice-president and general manager in 1926 and vice-president and general manager and director in 1927. He was appointed receiver on May 4, 1938, and retired on account of age and ill health on July 11 of this year. Mr. French also served as vice-president of the Rutland Transportation Company, Ogdensburg Terminal Company and Rutland Transit Company.

In the disastrous New England floods of November, 1927, during the general managership of Mr. French, the Rutland

suffered 356 washouts and incurred 40 landslides and the loss of 12 bridges; 300 of its total 407 miles of line were out of service for almost 17 days. By reason of continuous day and night work under Mr. French's supervision the railroad was reopened for slow speed service at the end of that period. He was also a pioneer advocate of substitution of interest adjustment for bankruptcy proceedings when the railroad ran into financial difficulties and chiefly by his efforts, a voluntary adjustment of interest plan was assented to by the majority of bondholders of the road in 1936, whereby they agreed to accept a reduction of interest of 70 per cent up to 1941. It was expectantly hoped that the plan would enable the company to continue operation of the property as a whole and avoid the cost of receivership, but the recent slump in business precluded further continuance of the plan and the road went into receivership in the Spring of this year.

J. E. Skaggs, whose appointment as assistant to vice-president of the Railway Express Agency at Atlanta, Ga., was reported in the *Railway Age* of September 10, has been in the express business for 44 years. After a brief experience as a messenger, he began his career as clerk-stenographer at Valdosta, Ga., in Decem-



J. E. Skaggs

ber, 1894, and the next year he went to Jacksonville, Fla., where he held various positions including that of chief clerk to the agent. In September, 1903, he was assigned to a similar position in the superintendent's office. In April, 1908, Mr. Skaggs was transferred to Atlanta, as agent's chief clerk, and two years later was made agent for both the Adams and Southern companies in that city. In July, 1913, he was appointed superintendent for the Southern at Charlotte, N. C., and in September, 1917, for the Adams, at Boston, Mass. In July, 1918 Mr. Skaggs returned to Charlotte to take charge of the Piedmont division of the American Railway Express. In the fall of 1920, when the Southeastern Express Company was formed, he went with the new organization, becoming assistant general manager at Atlanta in March of the next year and in July, general manager. He was elected president of the Southeastern Express Company on November 5, 1924, and served

in that capacity until operations of this company were taken over by the Railway Express Agency.

FINANCIAL, LEGAL AND ACCOUNTING

Charles C. Evans, whose appointment as general attorney of the Railway Express Agency at New York was noted in



C. C. Evans

the *Railway Age* of September 10, was graduated from Lafayette College in 1915 with a B.S. degree. He attended the University of Pennsylvania Law School for two years and was graduated from Fordham University Law School in 1918 with an LL.B. degree. After a short association with a law firm, he entered the law department of the Railway Express Agency as assistant attorney. Mr. Evans was appointed attorney in 1922 and in 1924 he was appointed general attorney for the New York City department. In that capacity he handled trials of cases in city, state and federal courts in the New York metropolitan area, including Interstate Commerce Commission proceedings in that region.

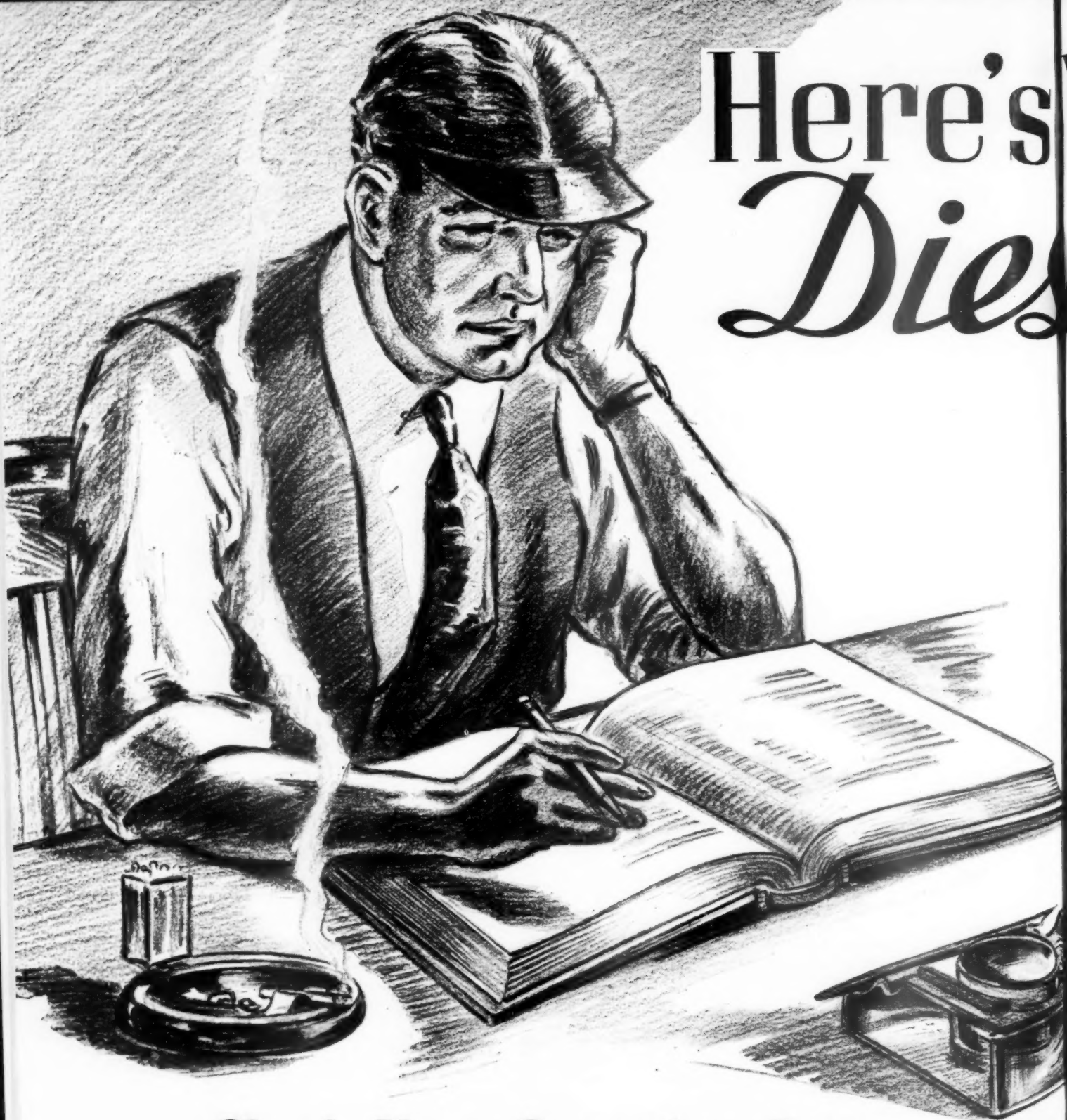
John H. Mooers, whose appointment as general solicitor in the law department of the Railway Express Agency, at New



John H. Mooers

York, was reported in the *Railway Age* of September 10, was graduated from Cor-

Here's *Dies*



Check Your Operating Costs

A comparison of costs reveals that non-Diesel users are paying a terrific premium for switching service. They are carrying a 400 per cent extra burden in hourly fuel costs — 200 per cent higher roundhouse costs — 100 per cent extra for maintenance.

ELECTRO-MOTIVE
SUBSIDIARY OF GENERAL MOTORS

Your Answer..... *el Operation*

IF operating costs are out of line, surely a 50 per cent reduction in such a magnitudinous expense as yard switching should interest you. This service cost the Class I railroads \$328,000,000 in 1936. The major items included \$35,403,983 for coal (exclusive of transportation costs); \$39,676,146 for repairs; \$16,539,115 for roundhouse expenses and \$3,326,531 for water.

Actual records show that EMC Diesel operation reduces fuel costs by 80 per cent, maintenance by 50 per cent, engine-house expenses by 66 per cent and water costs are eliminated entirely.



EMC CORPORATION
S LA GRANGE, ILLINOIS, U. S. A.

nell Law School in 1907 and admitted to the bar the same year. Mr. Mooers was then employed in the law department of the Travelers Insurance Company at New York and later became affiliated with the legal firm of Cravath, Henderson & de Gersdorff. In 1911 Mr. Mooers took up law matters of the Railway Express Agency, and, after service in the World War, re-entered the express company law department as assistant to general counsel. Mr. Mooers later became general attorney, the position he held until his recent appointment as general solicitor.

TRAFFIC

C. B. Williams, whose appointment as Southern traffic manager of the Railway



C. B. Williams

Express Agency at Atlanta, Ga., was reported in the *Railway Age* of September 10, started his express career at the age of 14. He began as a tracing clerk in the superintendent's office of the Southern Express in Charlotte, N. C., subsequently holding various clerical positions there. He later went to Richmond, Va., as chief clerk to claim agent and after consolidation of all express companies Mr. Williams was appointed claim agent for the Southern. He was appointed sales agent for the latter company at Richmond in April, 1920, and then went with the Southeastern Express as claim agent at Atlanta. He became claim superintendent two years later and superintendent of tariffs and claims in May, 1923. In October, 1924, Mr. Williams was appointed traffic manager of the Southeastern Express Company, the position he held until his recent appointment.

OPERATING

J. M. Long, assistant superintendent of the Cambria & Indiana, with headquarters at Colver, Pa., has been appointed superintendent, succeeding **H. H. Hooper**, deceased.

H. C. Munson, assistant superintendent of the La Crosse-River division of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Wausau, Wis., has been promoted to superintendent of the Iowa and Southern Minnesota division,

with headquarters at Austin, Minn., succeeding **R. C. Dodds**, who has been transferred to the Kansas City division, with headquarters at Ottumwa, Iowa, replacing **W. G. Bowen**. Mr. Bowen has been transferred to the Iowa division, with headquarters at Marion, Iowa, relieving **W. C. Givens**, who in turn, has transferred to the Dubuque and Illinois division, with headquarters at Savanna, Ill., succeeding **A. J. Elder**, whose promotion to general superintendent at Milwaukee was reported in the *Railway Age* of September 10. **J. J. O'Toole**, trainmaster of the Twin City Terminal division, with headquarters at Minneapolis, Minn., has been promoted to assistant superintendent of the La Crosse-River division replacing Mr. Munson, and **S. F. Philpot**, trainmaster of the Hastings and Dakota division, with headquarters at Aberdeen, S. D., has been transferred to Minneapolis relieving Mr. O'Toole. **L. W. Palmquist**, who was engaged in special work in the general managers office at Chicago, has been promoted to trainmaster at Aberdeen, succeeding Mr. Philpot.

B. F. Beckman, chief engineer of the Fort Smith & Western, has been appointed in addition to his duties as chief engineer, superintendent in charge of the transportation and mechanical departments, succeeding **J. I. Mailer**, deceased.

George Voelkner, whose promotion to superintendent of the Chicago & Western



George Voelkner

Indiana was reported in the *Railway Age* of September 3, entered the service of the Chicago & Western Indiana in June, 1908, as a switchboard operator at the Forty-eighth Street power plant at Chicago, and was advanced the following year to foreman in charge of electrical maintenance. In 1910, he was promoted to general foreman in charge of electrical construction and maintenance, and from 1912 to 1914, he was in charge of all electrical work at the Clearing yard of the Belt Railway, which was then under construction. He was made chief electrician of the Belt Railway in 1915, and later was placed in charge of the signal department. Mr. Voelkner was promoted to supervisor of telegraph and telephones of the C. & W. I. and the Belt Railway in November, 1933, and on June 1, 1937, he was advanced

to assistant superintendent, the position he held at the time of his recent promotion.

A. J. Elder, whose promotion to general superintendent of the Chicago, Mil-



A. J. Elder

waukee, St. Paul & Pacific, with headquarters at Milwaukee, Wis., was announced in the *Railway Age* of September 10, was born at Pierson, Iowa, on January 8, 1892, and entered railway service in April, 1907, as a telegraph operator on the Milwaukee. He was promoted to train dispatcher in 1912, and in 1917 was advanced to night chief dispatcher. Mr. Elder was promoted to chief dispatcher in 1918 and in 1921 he was advanced to trainmaster of the Milwaukee terminals. In 1925, he was promoted to assistant superintendent of the Twin City terminals, with headquarters at Minneapolis, Minn., and in 1926, he was advanced to superintendent of the Sioux City and Dakota division, with headquarters at Sioux City, Iowa. He subsequently served as superintendent at Terre Haute, Ind., Marion, Iowa, and Savanna, Ill., being located at the latter point at the time of his recent promotion.

Charles G. McDowell, chief clerk to vice-president in charge of operations in the East of the Railway Express Agency, at New York, has been appointed superintendent of the North Shore-Maine divi-



Charles G. McDowell

sion, with headquarters at Boston, Mass., to succeed the late **W. C. Johnson**. Mr.

McDowell has been in the express service for nearly 30 years. Starting as an express driver at DuBois, Pa., he served as messenger and clerk at various points in Pennsylvania, New York and Ohio. He was advanced to route agent and then was assigned to the superintendent's office in Pittsburgh. He served as chief route agent in West Virginia and Pennsylvania for six years until January, 1937, when he was appointed chief clerk to the vice-president in charge of operations at New York.

J. J. West, whose appointment as superintendent of the Georgia division of the Railway Express Agency at Atlanta, was reported in the *Railway Age* of September 10, has been an expressman for 32 years. Mr. West started as a vehicleman at Laurel, Miss., in June, 1906, and two years later became agent, then holding the same position at Bogalusa, La., he subsequently represented the Southern and Pacific companies as joint agent at Natchez, Miss., going to Hattiesburg, Miss., as agent. After service in the World War Mr. West became American Railway Express agent



J. J. West

at Jackson, Tenn., and in January, 1921, route agent at Newton, Miss. He began his service with the Southeastern in May, 1921, as assistant superintendent and was made superintendent at Birmingham, Ala., in November, 1924, holding that position until his recent appointment as superintendent of the Georgia division of the Railway Express Agency.

MECHANICAL

John A. Burke, assistant supervisor of air brakes on the Atchison, Topeka & Santa Fe, with headquarters at Topeka, Kan., has been promoted to supervisor of air brakes at that point, succeeding **G. H. Woods**, deceased.

A. B. Childs, acting mechanical engineer of the Northern Pacific, with headquarters at St. Paul, Minn., has been appointed mechanical engineer.

H. F. Finnemore, whose appointment as electrical engineer of the Canadian National, with headquarters at Montreal, was noted in the *Railway Age* of September 10, was born March 18, 1893, in Chicago,

Ill. He was graduated from Queen's University, Kingston, Ontario, with a B.S. in Electrical Engineering, in 1917. In March, 1918, he entered railroad service with the Canadian Government Railways, as drafts-



H. F. Finnemore

man at Moncton, N. B. On September 15, 1922, Mr. Finnemore became assistant engineer at Moncton, and in May, 1923, he was appointed assistant electrical engineer at Montreal, which latter position he maintained until his present appointment as electrical engineer in July of this year.

OBITUARY

Michael M. Hubbert, general eastern passenger agent of the Great Northern, with headquarters at New York, died suddenly on September 10, in his room at the Knickerbocker Hotel, Chicago.

George Montgomery Glazier, who retired last March as general auditor, revenues, of the New York Central, with headquarters at New York, died at his home in St. Petersburg, Fla., on September 6, in his 68th year. Mr. Glazier entered railroad service in 1890 as auditor of the Norfolk, Albemarle & Atlantic. When this road was merged with the Norfolk Southern a few years later he became assistant general manager. In 1906 he was appointed assistant to the financial vice-president of the New York Central Lines at New York. In 1909 he became assistant auditor of the Lake Shore & Michigan Southern (New York Central) and in 1910 he was appointed auditor. In 1915 he was appointed assistant general auditor of the New York Central and during the war was assistant federal auditor of the same road. In 1920, Mr. Glazier became auditor, and five years later he was appointed general auditor of revenues, from which position he retired in March, 1938.

John Gerard Westbrook, auditor of the Staten Island Rapid Transit (Baltimore & Ohio subsidiary), with headquarters at New York, died suddenly on August 25. Mr. Westbrook was born at Hamilton, Ohio, on April 29, 1875, and entered railroad service on September 1, 1902, with the Cincinnati, Hamilton & Dayton (now Baltimore & Ohio) as clerk in the office of the superintendent of track and structures at Hamilton, Ohio. On

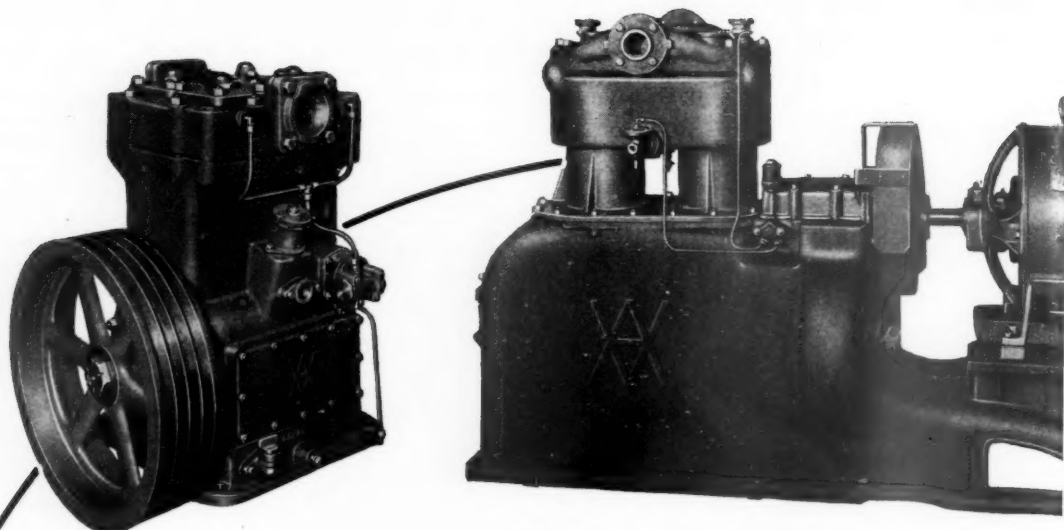
August 28, 1905, he was transferred to the accounting department of the Great Central Route, which included the Cincinnati, Hamilton & Dayton and the Pere Marquette, at Cincinnati, Ohio, as clerk in the office of the auditor of disbursements. On January 5, 1908, he was transferred to the office of the auditor of disbursements, Pere Marquette, at Detroit, Mich. On June 15, 1910, Mr. Westbrook was transferred to the C. H. & D. at Cincinnati, as traveling auditor, on December 17, 1910, he became chief clerk to the auditor of disbursements, and on December 1, 1911, chief clerk to the general auditor of that road. He was appointed auditor of disbursements of the same road on April 23, 1913, and continued in that position until August 1, 1917, when the Baltimore & Ohio acquired the Cincinnati, Hamilton & Dayton. He then was appointed special accountant, Baltimore & Ohio, at Baltimore, Md., and on March 1, 1919, he became auditor of the Staten Island Rapid Transit Railway Company, at New York, the position he held at the time of his death.

Gilbert F. Butler, vice-president in charge of traffic of the Norfolk & Western, with headquarters at Roanoke, Va., died on September 11 at Baltimore, after an illness of several weeks, at 61 years of age. Mr. Butler was born on August 24, 1877, in Richmond, Va., and entered the service of the Norfolk & Western in July, 1891, as messenger in the office of the freight claim agent at Roanoke. In December, 1895, he became clerk in the freight traffic department at Roanoke, being advanced to soliciting freight agent at Chicago, in October, 1902. Mr. Butler became traveling freight agent at Roanoke on October 1, 1907, and was appointed chief rate clerk on January 1, 1909; chief clerk to the general freight agent in 1912; and chief clerk to the freight traffic manager in 1913. He was appointed assistant general freight agent in December, 1917, and in June, 1922, became general freight agent. He was further advanced to the position of freight traffic manager in Feb-



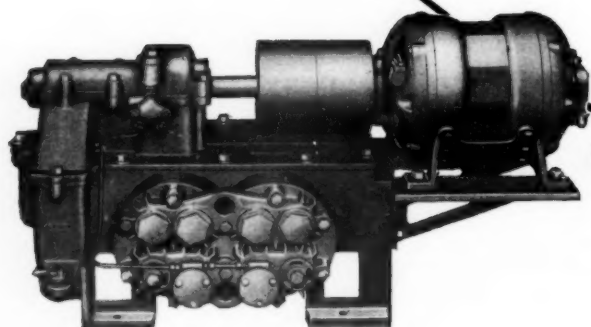
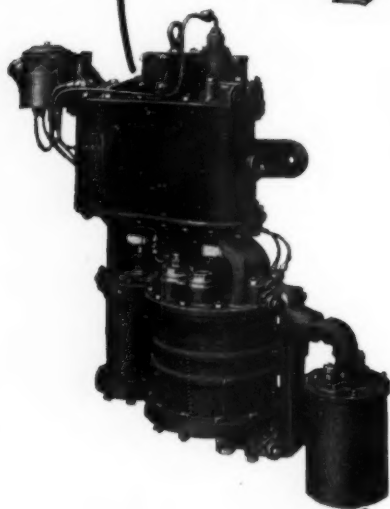
Gilbert F. Butler

ruary, 1927, and in June, 1931, he was appointed general traffic manager. Mr. Butler held the latter position until April 1, 1934, when he was appointed vice-president in charge of traffic, the position he held until his death.



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